



SEQUENCE LISTING

<110> O'Toole et al.

<120> Composition and Method for Treating Lupus Nephritis

<130> 22058-582

<140> 10/719,385

<141> 2003-11-21

<150> PCT/US03/37339

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<150> 60/428,094

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<170> PatentIn Ver. 2.1

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Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
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Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
245 250 255
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
260 265 270
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
275 280 285
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
290 295 300
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
305 310 315 320
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
325 330 335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
340 345 350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
355 360 365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
370 375 380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
385 390 395 400
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
405 410 415
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
420 425 430
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
435 440 445
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
450 455 460
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
465 470 475 480
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
485 490 495
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
500 505 510
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
515 520 525

Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr	530	535	540	
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala	545	550	555	560
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val	565	570	575	
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro	580	585	590	
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	595	600	605	
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	610	615	620	
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr	625	630	635	640
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	645	650	655	
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	660	665	670	
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	675	680	685	
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser	690	695	700	
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro	705	710	715	720
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile	725	730	735	
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His	740	745	750	
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys	755	760	765	
Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile	770	775	780	
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro	785	790	795	800
Arg	Ser	Asp	Gly	Ala	Glu	Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys	805	810	815	
Thr	Val	Lys	Leu	Ala	Phe	Ser	Val	Thr	Asn	Asn	Val	Ile	Arg	Leu	Lys	820	825	830	

Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135

Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
1140 1145 1150
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
1155 1160 1165
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
1170 1175 1180
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
1185 1190 1195 1200
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
1205 1210 1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
1220 1225 1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
1235 1240 1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
1250 1255 1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
1265 1270 1275 1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
1285 1290 1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
1300 1305 1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
1315 1320 1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
1330 1335 1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
1345 1350 1355 1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
1365 1370 1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
1380 1385 1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
1395 1400 1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
1410 1415 1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
1425 1430 1435 1440

Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
1445 1450 1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
1460 1465 1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
1475 1480 1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
1490 1495 1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
1505 1510 1515 1520
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
1525 1530 1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
1540 1545 1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
1555 1560 1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
1570 1575 1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
1585 1590 1595 1600
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
1605 1610 1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
1620 1625 1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
1635 1640 1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
1650 1655 1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
1665 1670 1675 1680
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
1685 1690 1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
1700 1705 1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
1715 1720 1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
1745 1750

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<211> 1753
<212> PRT
<213> Homo sapiens

<400> 4
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
1 5 10 15
Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45
Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60
Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80
Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95
Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
100 105 110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125
Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
130 135 140
Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
145 150 155 160
Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
165 170 175
Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
180 185 190
Glu Thr His Gly Asn Ile Met Thr Glu Arg Gln Val Ser Arg Trp Phe
195 200 205
Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
210 215 220
Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
225 230 235 240
Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His

245										250					255				
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe				
			260					265					270						
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys				
		275					280					285							
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly				
	290					295					300								
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile				
305					310					315					320				
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr				
				325					330					335					
Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser	Val	Val	Arg	Lys	Ile	Gly	Gly	Thr				
			340					345					350						
Ala	Ile	Gln	Leu	Asn	Val	Phe	Gln	Tyr	Leu	Thr	Arg	Leu	Leu	Gln	Ser				
		355					360					365							
Leu	Ala	Ser	Gly	Gly	Asn	Asp	Cys	Thr	Thr	Ser	Thr	Ala	Cys	Met	Cys				
	370					375					380								
Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val	Leu	Thr	Ser	Leu	Glu	Leu	His	Thr				
385					390					395				400					
Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile	Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala				
			405					410						415					
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly				
			420					425					430						
Leu	Gly	Ile	Ile	Leu	Asp	Ser	Val	Cys	Gly	Met	Phe	Pro	His	Leu	Leu				
		435					440					445							
Ser	Pro	Leu	Leu	Gln	Leu	Leu	Arg	Ala	Leu	Val	Ser	Gly	Lys	Ser	Thr				
	450					455					460								
Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu	Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu				
465					470				475					480					
Leu	Tyr	Lys	His	Lys	Pro	His	Asp	Val	Ile	Ser	His	Glu	Asp	Gly	Thr				
			485					490						495					
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln				
		500						505					510						
Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp				
		515					520					525							
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr				
	530					535					540								
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala				

545		550		555		560
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val						
	565			570		575
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro						
	580			585		590
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile						
	595			600		605
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val						
	610			615		620
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr						
	625			630		635
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met						
	645			650		655
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met						
	660			665		670
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu						
	675			680		685
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser						
	690			695		700
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro						
	705			710		715
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile						
	725			730		735
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His						
	740			745		750
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys						
	755			760		765
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile						
	770			775		780
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro						
	785			790		795
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys						
	805			810		815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys						
	820			825		830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His						
	835			840		845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr						

850		855		860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys				
865		870		880
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn				
	885		890	895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys				
	900		905	910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val				
	915		920	925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu				
	930		935	940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp				
945		950		960
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp				
	965		970	975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu				
	980		985	990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg				
	995		1000	1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr				
1010		1015		1020
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys				
1025		1030		1040
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys				
	1045		1050	1055
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile				
	1060		1065	1070
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val				
	1075		1080	1085
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr				
	1090		1095	1100
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr				
1105		1110		1120
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu				
	1125		1130	1135
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala				
	1140		1145	1150
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu				

1155	1160	1165
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile		
1170	1175	1180
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln		
1185	1190	1195 1200
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr		
	1205 1210	1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser		
	1220 1225	1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala		
1235	1240	1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu		
1250	1255	1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg		
1265	1270 1275	1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu		
	1285 1290	1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg		
	1300 1305	1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		
	1315 1320	1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350 1355	1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
	1365 1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
	1380 1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
	1395 1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430 1435	1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
	1445 1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		

1460	1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510	1515
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
	1525	1530
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		
1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
	1605	1610
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		
1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
	1685	1690
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		
1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	

<400> 5

21

Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys Cys
 275 280 285
 Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly Leu
 290 295 300
 Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile Pro
 305 310 315 320
 His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr Leu
 325 330 335
 Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr Ala
 340 345 350
 Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser Leu
 355 360 365
 Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys Val
 370 375 380
 Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr Leu
 385 390 395 400
 Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala Asp
 405 410 415
 Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly Leu
 420 425 430
 Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu Ser
 435 440 445
 Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr Ala
 450 455 460
 Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu Leu
 465 470 475 480
 Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr Leu
 485 490 495
 Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln Thr
 500 505 510
 Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp Asp
 515 520 525
 Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr Leu
 530 535 540
 Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala Asp
 545 550 555 560
 Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val His
 565 570 575

Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro Ile
 580 585 590
 Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile Ser
 595 600 605
 Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val Leu
 610 615 620
 Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr Gly
 625 630 635 640
 Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met Ile
 645 650 655
 Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met Asn
 660 665 670
 Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu Arg
 675 680 685
 Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser Gln
 690 695 700
 Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro Ser
 705 710 715 720
 Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile Gly
 725 730 735
 Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His Glu
 740 745 750
 Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys Ile
 755 760 765
 Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile Met
 770 775 780
 Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro Arg
 785 790 795 800
 Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys Thr
 805 810 815
 Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys Pro
 820 825 830
 Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His Gly
 835 840 845
 Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr His
 850 855 860
 Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys Arg
 865 870 875 880

Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn Asp
 885 890 895
 Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys Ile
 900 905 910
 Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val Ala
 915 920 925
 Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu Val
 930 935 940
 Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp Ser
 945 950 955 960
 Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp Arg
 965 970 975
 Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu His
 980 985 990
 Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg Thr
 995 1000 1005
 Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr Leu
 1010 1015 1020
 Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys Ala
 1025 1030 1035 1040
 Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys Gly
 1045 1050 1055
 Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile Glu
 1060 1065 1070
 Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val His
 1075 1080 1085
 Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr Gln
 1090 1095 1100
 Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr His
 1105 1110 1115 1120
 Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu Phe
 1125 1130 1135
 Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala Ser
 1140 1145 1150
 Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu Ile
 1155 1160 1165
 Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile Leu
 1170 1175 1180

Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln Gln
 1185 1190 1195 1200
 Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr Val
 1205 1210 1215
 Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser Gln
 1220 1225 1230
 Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala Leu
 1235 1240 1245
 Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu Asp
 1250 1255 1260
 Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg Asp
 1265 1270 1275 1280
 Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu Leu
 1285 1290 1295
 Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg Arg
 1300 1305 1310
 Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu Arg
 1315 1320 1325
 Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu Leu
 1330 1335 1340
 Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala Gly
 1345 1350 1355 1360
 Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu Ser
 1365 1370 1375
 Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu Asp
 1380 1385 1390
 Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met Glu
 1395 1400 1405
 Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu Asp
 1410 1415 1420
 Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala Val
 1425 1430 1435 1440
 Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr Val
 1445 1450 1455
 Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe His
 1460 1465 1470
 Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu Cys
 1475 1480 1485

Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His Tyr
 1490 1495 1500
 Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln Arg
 1505 1510 1515 1520
 Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser Lys
 1525 1530 1535
 Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His Thr
 1540 1545 1550
 Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala Leu
 1555 1560 1565
 Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser Leu
 1570 1575 1580
 Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr Pro
 1585 1590 1595 1600
 Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala Thr
 1605 1610 1615
 Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys Glu
 1620 1625 1630
 Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr Arg
 1635 1640 1645
 Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr Leu
 1650 1655 1660
 Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His Pro
 1665 1670 1675 1680
 Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser Thr
 1685 1690 1695
 Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser Ser
 1700 1705 1710
 Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser Leu
 1715 1720 1725
 Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val Gln
 1730 1735 1740
 Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 6
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 6

Met	Ile	Arg	Lys	Ser	Lys	Ile	Thr	Ser	Val	Leu	Ser	Phe	Cys	Arg	Ser	
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Ser	Arg	Glu	Leu	Trp	Thr	Ile	Leu	Leu	Gly	Arg	Ser	Ala	Leu	Arg	Glu	
		20						25					30			
Leu	Ser	Gln	Ile	Glu	Ala	Glu	Leu	Asn	Lys	His	Trp	Arg	Arg	Leu	Leu	
		35					40					45				
Glu	Gly	Leu	Ser	Tyr	Tyr	Lys	Pro	Pro	Ser	Pro	Ser	Ser	Ala	Glu	Lys	
	50					55					60					
Val	Lys	Ala	Asn	Lys	Asp	Val	Ala	Ser	Pro	Leu	Lys	Glu	Leu	Gly	Leu	
65					70					75					80	
Arg	Ile	Ser	Lys	Phe	Leu	Gly	Leu	Asp	Glu	Glu	Gln	Ser	Val	Gln	Leu	
			85						90					95		
Leu	Gln	Cys	Tyr	Leu	Gln	Glu	Asp	Tyr	Arg	Gly	Thr	Arg	Asp	Ser	Val	
		100						105					110			
Lys	Thr	Val	Leu	Gln	Asp	Glu	Arg	Gln	Ser	Gln	Ala	Leu	Ile	Leu	Lys	
	115						120					125				
Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val	
	130					135					140					
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val	
145					150					155					160	
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys	
			165						170					175		
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp	
		180						185					190			
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe	
	195						200					205				
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu	
	210					215					220					
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr	
225					230					235					240	
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His	
			245						250					255		
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe	
		260						265					270			
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys	
	275						280					285				
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly	
	290					295					300					

Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320
 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335
 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350
 Ala Ile Asn Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365
 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380
 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400
 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415
 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430
 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445
 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460
 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480
 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495
 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510
 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525
 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540
 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560
 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575
 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590
 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605

Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620
 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910

Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215

Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
1220 1225 1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
1235 1240 1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
1250 1255 1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
1265 1270 1275 1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
1285 1290 1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
1300 1305 1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
1315 1320 1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
1330 1335 1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
1345 1350 1355 1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
1365 1370 1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
1380 1385 1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
1395 1400 1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
1410 1415 1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
1425 1430 1435 1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
1445 1450 1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
1460 1465 1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
1475 1480 1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
1490 1495 1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
1505 1510 1515 1520

Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 7
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 7
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
 1 5 10 15
 Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu

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Leu	Ser	Gln	Ile	Glu	Ala	Glu	Leu	Asn	Lys	His	Trp	Arg	Arg	Leu	Leu				
		35					40					45							
Glu	Gly	Leu	Ser	Tyr	Tyr	Lys	Pro	Pro	Ser	Pro	Ser	Ser	Ala	Glu	Lys				
	50					55					60								
Val	Lys	Ala	Asn	Lys	Asp	Val	Ala	Ser	Pro	Leu	Lys	Glu	Leu	Gly	Leu				
	65				70					75					80				
Arg	Ile	Ser	Lys	Phe	Leu	Gly	Leu	Asp	Glu	Glu	Gln	Ser	Val	Gln	Leu				
				85					90					95					
Leu	Gln	Cys	Tyr	Leu	Gln	Glu	Asp	Tyr	Arg	Gly	Thr	Arg	Asp	Ser	Val				
		100						105					110						
Lys	Thr	Val	Leu	Gln	Asp	Glu	Arg	Gln	Ser	Gln	Ala	Leu	Ile	Leu	Lys				
		115					120					125							
Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val				
	130					135					140								
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val				
	145				150					155					160				
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys				
			165					170						175					
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp				
		180						185					190						
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe				
	195						200					205							
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu				
	210					215					220								
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr				
	225				230					235					240				
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His				
			245					250						255					
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe				
		260						265					270						
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys				
		275					280					285							
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly				
	290					295					300								
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile				
	305				310					315					320				
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr				

	325		330		335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr	340	345	350		
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser	355	360	365		
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys	370	375	380		
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr	385	390	395	400	
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala	405	410	415		
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly	420	425	430		
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro Arg Leu Leu	435	440	445		
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr	450	455	460		
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu	465	470	475	480	
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr	485	490	495		
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln	500	505	510		
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp	515	520	525		
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr	530	535	540		
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala	545	550	555	560	
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val	565	570	575		
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro	580	585	590		
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile	595	600	605		
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val	610	615	620		
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr					

625		630		635		640
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met						
		645		650		655
Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met						
		660		665		670
Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu						
		675		680		685
Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser						
		690		695		700
Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro						
		705		710		715
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile						
		725		730		735
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His						
		740		745		750
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys						
		755		760		765
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile						
		770		775		780
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro						
		785		790		795
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys						
		805		810		815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys						
		820		825		830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His						
		835		840		845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr						
		850		855		860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys						
		865		870		875
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn						
		885		890		895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys						
		900		905		910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val						
		915		920		925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu						

930	935	940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp 945 950 955 960		
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp 965 970 975		
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu 980 985 990		
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg 995 1000 1005		
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr 1010 1015 1020		
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys 1025 1030 1035 1040		
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys 1045 1050 1055		
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile 1060 1065 1070		
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val 1075 1080 1085		
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr 1090 1095 1100		
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr 1105 1110 1115 1120		
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu 1125 1130 1135		
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala 1140 1145 1150		
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu 1155 1160 1165		
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile 1170 1175 1180		
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln 1185 1190 1195 1200		
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr 1205 1210 1215		
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser 1220 1225 1230		
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala		

1235	1240	1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu 1250	1255	1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg 1265	1270	1275 1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu 1285	1290	1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg 1300	1305	1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu 1315	1320	1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu 1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala 1345	1350	1355 1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu 1365	1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu 1380	1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met 1395	1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu 1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala 1425	1430	1435 1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr 1445	1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe 1460	1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu 1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His 1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln 1505	1510	1515 1520
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser 1525	1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		

1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595 1600
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		
1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675 1680
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		
1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	

<210> 8
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 8
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
 1 5 10 15
 Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30
 Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45

Glu 50	Gly	Leu	Ser	Tyr	Tyr	Lys 55	Pro	Pro	Ser	Pro	Ser 60	Ser	Ala	Glu	Lys
Val 65	Lys	Ala	Asn	Lys	Asp 70	Val	Ala	Ser	Pro	Leu 75	Lys	Glu	Leu	Gly	Leu 80
Arg	Ile	Ser	Lys	Phe 85	Leu	Gly	Leu	Asp	Glu 90	Glu	Gln	Ser	Val	Gln	Leu 95
Leu	Gln	Cys	Tyr 100	Leu	Gln	Glu	Asp	Tyr 105	Arg	Gly	Thr	Arg	Asp 110	Ser	Val
Lys	Thr	Val 115	Leu	Gln	Asp	Glu 120	Arg	Gln	Ser	Gln	Ala 125	Leu	Ile	Leu	Lys
Ile 130	Ala	Asp	Tyr	Tyr	Tyr	Glu 135	Glu	Arg	Thr	Cys	Ile 140	Leu	Arg	Cys	Val
Leu 145	His	Leu	Leu	Thr	Tyr 150	Phe	Gln	Asp	Glu	Arg 155	His	Pro	Tyr	Arg	Val 160
Glu	Tyr	Ala	Asp	Cys 165	Val	Asp	Lys	Leu	Glu 170	Lys	Glu	Leu	Val	Ser	Lys 175
Tyr	Arg	Gln	Gln 180	Phe	Glu	Glu	Leu	Tyr 185	Lys	Thr	Glu	Ala	Pro 190	Thr	Trp
Glu	Thr	His 195	Gly	Asn	Leu	Met	Thr 200	Glu	Arg	Gln	Val 205	Ser	Arg	Trp	Phe
Val 210	Gln	Cys	Leu	Arg	Glu	Gln 215	Ser	Met	Leu	Leu	Glu 220	Ile	Ile	Phe	Leu
Tyr 225	Tyr	Ala	Tyr	Phe	Glu 230	Met	Ala	Pro	Ser	Asp 235	Leu	Leu	Val	Leu	Thr 240
Lys	Met	Phe	Lys	Glu 245	Gln	Gly	Phe	Gly	Ser 250	Arg	Gln	Thr	Asn	Arg 255	His
Leu	Val	Asp	Glu 260	Thr	Met	Asp	Pro	Phe 265	Val	Asp	Arg	Ile	Gly 270	Tyr	Phe
Ser	Ala	Leu 275	Ile	Leu	Val	Glu	Gly 280	Met	Asp	Ile	Glu	Ser 285	Leu	His	Lys
Cys	Ala	Leu	Asp	Asp	Arg	Arg 295	Glu	Leu	His	Gln	Phe 300	Ala	Gln	Asp	Gly
Leu 305	Ile	Cys	Gln	Asp	Met 310	Asp	Cys	Leu	Met	Leu 315	Thr	Phe	Gly	Asp	Ile 320
Pro	His	His	Ala	Pro 325	Val	Leu	Leu	Ala	Trp 330	Ala	Leu	Leu	Arg	His 335	Thr
Leu	Asn	Pro	Glu 340	Glu	Thr	Ser	Ser 345	Val	Val	Arg	Lys	Ile 350	Gly	Gly	Thr

Ala	Ile	Gln	Leu	Asn	Val	Phe	Gln	Tyr	Leu	Thr	Arg	Leu	Leu	Gln	Ser	355	360	365	
Leu	Ala	Ser	Gly	Gly	Asn	Asp	Cys	Thr	Thr	Ser	Thr	Ala	Cys	Met	Cys	370	375	380	
Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val	Leu	Thr	Ser	Leu	Glu	Leu	His	Thr	385	390	395	400
Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile	Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala	405	410	415	
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly	420	425	430	
Leu	Gly	Ile	Ile	Leu	Asp	Ser	Val	Cys	Gly	Met	Phe	Pro	His	Leu	Leu	435	440	445	
Ser	Pro	Leu	Leu	Gln	Leu	Leu	Arg	Ala	Leu	Val	Ser	Gly	Lys	Ser	Thr	450	455	460	
Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu	Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu	465	470	475	480
Leu	Tyr	Lys	His	Lys	Pro	His	Asp	Val	Ile	Ser	His	Glu	Asp	Gly	Thr	485	490	495	
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln	500	505	510	
Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp	515	520	525	
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr	530	535	540	
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Ile	Leu	His	Val	Val	Ser	Thr	Ala	545	550	555	560
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val	565	570	575	
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro	580	585	590	
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	595	600	605	
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	610	615	620	
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr	625	630	635	640
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	645	650	655	

Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	660	665	670	
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	675	680	685	
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser	690	695	700	
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro	705	710	715	720
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile	725	730	735	
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His	740	745	750	
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys	755	760	765	
Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile	770	775	780	
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro	785	790	795	800
Arg	Ser	Asp	Gly	Ala	Glu	Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys	805	810	815	
Thr	Val	Lys	Leu	Ala	Phe	Ser	Val	Thr	Asn	Asn	Val	Ile	Arg	Leu	Lys	820	825	830	
Pro	Pro	Ser	Asn	Val	Val	Ser	Pro	Leu	Glu	Gln	Ala	Leu	Ser	Gln	His	835	840	845	
Gly	Ala	His	Gly	Asn	Asn	Leu	Ile	Ala	Val	Leu	Ala	Lys	Tyr	Ile	Tyr	850	855	860	
His	Lys	His	Asp	Pro	Ala	Leu	Pro	Arg	Leu	Ala	Ile	Gln	Leu	Leu	Lys	865	870	875	880
Arg	Leu	Ala	Thr	Val	Ala	Pro	Met	Ser	Val	Tyr	Ala	Cys	Leu	Gly	Asn	885	890	895	
Asp	Ala	Ala	Ala	Ile	Arg	Asp	Ala	Phe	Leu	Thr	Arg	Leu	Gln	Ser	Lys	900	905	910	
Ile	Glu	Asp	Met	Arg	Ile	Lys	Val	Met	Ile	Leu	Glu	Phe	Leu	Thr	Val	915	920	925	
Ala	Val	Glu	Thr	Gln	Pro	Gly	Leu	Ile	Glu	Leu	Phe	Leu	Asn	Leu	Glu	930	935	940	
Val	Lys	Asp	Gly	Ser	Asp	Gly	Ser	Lys	Glu	Phe	Ser	Leu	Gly	Met	Trp	945	950	955	960

Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260

Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565

Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 9
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 9
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
 1 5 10 15
 Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30
 Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45
 Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
 50 55 60
 Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95
 Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110
 Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125
 Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140
 Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160
 Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175
 Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190
 Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205
 Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220
 Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240
 Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255
 Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270
 Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285
 Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300
 Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320
 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335
 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350
 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365
 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380

Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val	Leu	Thr	Ser	Leu	Glu	Leu	His	Thr	385	390	395	400
Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile	Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala	405	410	415	
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly	420	425	430	
Leu	Gly	Ile	Ile	Leu	Asp	Ser	Val	Cys	Gly	Met	Phe	Pro	His	Leu	Leu	435	440	445	
Ser	Pro	Leu	Leu	Gln	Leu	Leu	Arg	Ala	Leu	Val	Ser	Gly	Lys	Ser	Thr	450	455	460	
Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu	Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu	465	470	475	480
Leu	Tyr	Lys	His	Lys	Pro	His	Asp	Val	Ile	Ser	His	Glu	Asp	Gly	Thr	485	490	495	
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln	500	505	510	
Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp	515	520	525	
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr	530	535	540	
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala	545	550	555	560
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val	565	570	575	
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro	580	585	590	
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	595	600	605	
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	610	615	620	
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Phe	Thr	Asp	Leu	Arg	His	Thr	625	630	635	640
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	645	650	655	
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	660	665	670	
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	675	680	685	

Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990

His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295

Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600

Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

 <210> 10
 <211> 1753
 <212> PRT
 <213> Homo sapiens

 <400> 10
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
 1 5 10 15
 Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30
 Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45
 Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
 50 55 60
 Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80
 Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95
 Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val

100	105	110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys 115 120 125		
Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val 130 135 140		
Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val 145 150 155 160		
Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys 165 170 175		
Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp 180 185 190		
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe 195 200 205		
Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu 210 215 220		
Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr 225 230 235 240		
Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His 245 250 255		
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe 260 265 270		
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys 275 280 285		
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly 290 295 300		
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile 305 310 315 320		
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr 325 330 335		
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr 340 345 350		
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser 355 360 365		
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys 370 375 380		
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr 385 390 395 400		
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala		

405					410					415					
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly
			420					425					430		
Leu	Gly	Ile	Ile	Leu	Asp	Ser	Val	Cys	Gly	Met	Phe	Pro	His	Leu	Leu
		435					440					445			
Ser	Pro	Leu	Leu	Gln	Leu	Leu	Arg	Ala	Leu	Val	Ser	Gly	Lys	Ser	Thr
		450					455					460			
Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu	Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu
465							470					475			480
Leu	Tyr	Lys	His	Lys	Pro	His	Asp	Val	Ile	Ser	His	Glu	Asp	Gly	Thr
				485					490					495	
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln
			500					505					510		
Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp
		515					520					525			
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr
		530					535					540			
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala
545							550					555			560
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val
				565					570					575	
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro
			580					585					590		
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile
		595					600					605			
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val
		610					615					620			
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr
625							630					635			640
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met
				645					650					655	
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met
			660					665					670		
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu
		675					680					685			
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser
		690					695					700			
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro

705		710		715		720
Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile						
		725		730		735
Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asp Leu Cys His						
		740		745		750
Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys						
		755		760		765
Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile						
		770		775		780
Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro						
		785		790		800
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys						
		805		810		815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys						
		820		825		830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His						
		835		840		845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr						
		850		855		860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys						
		865		870		875
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn						
		885		890		895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys						
		900		905		910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val						
		915		920		925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu						
		930		935		940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp						
		945		950		955
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp						
		965		970		975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu						
		980		985		990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg						
		995		1000		1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr						

1010	1015	1020
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys 1025 1030 1035 1040		
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys 1045 1050 1055		
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile 1060 1065 1070		
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val 1075 1080 1085		
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr 1090 1095 1100		
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr 1105 1110 1115 1120		
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu 1125 1130 1135		
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala 1140 1145 1150		
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu 1155 1160 1165		
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile 1170 1175 1180		
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln 1185 1190 1195 1200		
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr 1205 1210 1215		
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser 1220 1225 1230		
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala 1235 1240 1245		
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu 1250 1255 1260		
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg 1265 1270 1275 1280		
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu 1285 1290 1295		
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg 1300 1305 1310		
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		

1315	1320	1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
1330	1335	1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350	1355 1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
	1365 1370	1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
	1380 1385	1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
	1395 1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
	1410 1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430 1435	1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
	1445 1450	1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
	1460 1465	1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
	1475 1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
	1490 1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510 1515	1520
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
	1525 1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		
	1540 1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
	1555 1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
	1570 1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590 1595	1600
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
	1605 1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		

1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		
1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	

<210> 11
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 11

Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser	
1	15
Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu	
20	30
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu	
35	45
Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys	
50	60
Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu	
65	80
Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu	
85	95
Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val	
100	110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys	
115	125

Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val	130	135	140
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val	145	150	155
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys	165	170	175
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp	180	185	190
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe	195	200	205
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu	210	215	220
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr	225	230	235
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His	245	250	255
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe	260	265	270
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys	275	280	285
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly	290	295	300
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile	305	310	315
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr	325	330	335
Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser	Val	Val	Arg	Lys	Ile	Gly	Gly	Thr	340	345	350
Ala	Ile	Gln	Leu	Asn	Val	Phe	Gln	Tyr	Leu	Thr	Arg	Leu	Leu	Gln	Ser	355	360	365
Leu	Ala	Ser	Gly	Gly	Asn	Asp	Cys	Thr	Thr	Ser	Thr	Ala	Cys	Met	Cys	370	375	380
Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val	Leu	Thr	Ser	Leu	Glu	Leu	His	Thr	385	390	395
Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile	Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala	405	410	415
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly	420	425	430

Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445
 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460
 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480
 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495
 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510
 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525
 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540
 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560
 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575
 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590
 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605
 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620
 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735

Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Met Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040

Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340

Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645

Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660

Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680

Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695

Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710

Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725

Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 12
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 <212> PRT
 <213> Homo sapiens

<400> 12
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
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Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
 50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125

Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175
 Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190
 Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205
 Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220
 Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240
 Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255
 Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270
 Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285
 Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300
 Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320
 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335
 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350
 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365
 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380
 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400
 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415
 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430
 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445
 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460

Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu	Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu	465	470	475	480
Leu	Tyr	Lys	His	Lys	Pro	His	Asp	Val	Ile	Ser	His	Glu	Asp	Gly	Thr	485	490	495	
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln	500	505	510	
Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp	515	520	525	
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr	530	535	540	
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala	545	550	555	560
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val	565	570	575	
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro	580	585	590	
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	595	600	605	
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	610	615	620	
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr	625	630	635	640
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	645	650	655	
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	660	665	670	
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	675	680	685	
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser	690	695	700	
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro	705	710	715	720
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile	725	730	735	
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His	740	745	750	
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys	755	760	765	

Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile		
770						775					780						
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro		
785					790					795					800		
Arg	Ser	Asp	Gly	Ala	Glu	Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys		
			805					810						815			
Thr	Val	Lys	Leu	Ala	Phe	Ser	Val	Thr	Asn	Asn	Val	Ile	Arg	Leu	Lys		
			820					825					830				
Pro	Pro	Ser	Asn	Val	Val	Ser	Pro	Leu	Glu	Gln	Ala	Leu	Ser	Gln	His		
		835					840					845					
Gly	Ala	His	Gly	Asn	Asn	Leu	Ile	Ala	Val	Leu	Ala	Lys	Tyr	Ile	Tyr		
850						855					860						
His	Lys	His	Asp	Pro	Ala	Leu	Pro	Arg	Leu	Ala	Ile	Gln	Leu	Leu	Lys		
865					870				875						880		
Arg	Leu	Ala	Thr	Val	Ala	Pro	Met	Ser	Val	Tyr	Ala	Cys	Leu	Gly	Asn		
			885					890					895				
Asp	Ala	Ala	Ala	Ile	Arg	Asp	Ala	Phe	Leu	Thr	Arg	Leu	Gln	Ser	Lys		
			900					905					910				
Ile	Glu	Asp	Met	Arg	Ile	Lys	Val	Met	Ile	Leu	Glu	Phe	Leu	Thr	Val		
	915						920					925					
Ala	Val	Glu	Thr	Gln	Pro	Gly	Leu	Ile	Glu	Leu	Phe	Leu	Asn	Leu	Glu		
	930					935					940						
Val	Lys	Asp	Gly	Ser	Asp	Gly	Ser	Lys	Glu	Phe	Ser	Leu	Thr	Met	Trp		
945					950					955					960		
Ser	Cys	Leu	His	Ala	Val	Leu	Glu	Leu	Ile	Asp	Ser	Gln	Gln	Gln	Asp		
			965					970						975			
Arg	Tyr	Trp	Cys	Pro	Pro	Leu	Leu	His	Arg	Ala	Ala	Ile	Ala	Phe	Leu		
			980					985					990				
His	Ala	Leu	Trp	Gln	Asp	Arg	Arg	Asp	Ser	Ala	Met	Leu	Val	Leu	Arg		
	995					1000					1005						
Thr	Lys	Pro	Lys	Phe	Trp	Glu	Asn	Leu	Thr	Ser	Pro	Leu	Phe	Gly	Thr		
	1010					1015					1020						
Leu	Ser	Pro	Pro	Ser	Glu	Thr	Ser	Glu	Pro	Ser	Ile	Leu	Glu	Thr	Cys		
1025					1030					1035					1040		
Ala	Leu	Ile	Met	Lys	Ile	Ile	Cys	Leu	Glu	Ile	Tyr	Tyr	Val	Val	Lys		
			1045					1050					1055				
Gly	Ser	Leu	Asp	Gln	Ser	Leu	Lys	Asp	Thr	Leu	Lys	Lys	Phe	Ser	Ile		
		1060						1065					1070				

Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375

Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680

Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
1685 1690 1695

Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
1700 1705 1710

Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
1715 1720 1725

Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
1745 1750

<210> 13
<211> 1753
<212> PRT
<213> Homo sapiens

<400> 13
Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
1 5 10 15

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125

Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp

180	185	190
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe 195 200 205		
Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu 210 215 220		
Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr 225 230 235 240		
Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His 245 250 255		
Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe 260 265 270		
Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys 275 280 285		
Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly 290 295 300		
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile 305 310 315 320		
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr 325 330 335		
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr 340 345 350		
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser 355 360 365		
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys 370 375 380		
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr 385 390 395 400		
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala 405 410 415		
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly 420 425 430		
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu 435 440 445		
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr 450 455 460		
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu 465 470 475 480		
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr		

485					490					495					
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln
			500					505					510		
Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp
		515					520					525			
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr
	530					535					540				
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala
545						550					555				560
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val
				565					570					575	
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro
			580					585					590		
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile
		595					600					605			
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val
	610					615					620				
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr
625						630					635				640
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met
				645					650					655	
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met
			660					665					670		
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu
		675					680					685			
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser
	690					695					700				
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro
705						710					715				720
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile
				725					730					735	
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His
			740					745					750		
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys
		755					760					765			
Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile
	770					775					780				
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro

785		790		795		800
Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys						
	805			810		815
Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys						
	820			825		830
Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His						
	835			840		845
Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr						
	850			855		860
His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys						
	865			870		875
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn						
	885			890		895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys						
	900			905		910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val						
	915			920		925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu						
	930			935		940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp						
	945			950		955
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp						
	965			970		975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu						
	980			985		990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg						
	995			1000		1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr						
	1010			1015		1020
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys						
	1025			1030		1035
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys						
	1045			1050		1055
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile						
	1060			1065		1070
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Arg Ser Leu Ala Val						
	1075			1080		1085
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr						

1090	1095	1100
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr 1105 1110 1115 1120		
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu 1125 1130 1135		
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ala 1140 1145 1150		
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu 1155 1160 1165		
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile 1170 1175 1180		
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln 1185 1190 1195 1200		
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr 1205 1210 1215		
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser 1220 1225 1230		
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala 1235 1240 1245		
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu 1250 1255 1260		
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg 1265 1270 1275 1280		
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu 1285 1290 1295		
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg 1300 1305 1310		
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu 1315 1320 1325		
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu 1330 1335 1340		
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala 1345 1350 1355 1360		
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu 1365 1370 1375		
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu 1380 1385 1390		
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		

1395	1400	1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
1410	1415	1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430	1435 1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
	1445	1450 1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
	1460	1465 1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
	1475	1480 1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
	1490	1495 1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510	1515 1520
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
	1525	1530 1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His		
	1540	1545 1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		
	1555	1560 1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
	1570	1575 1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595 1600
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
	1605	1610 1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		
	1620	1625 1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
	1635	1640 1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
	1650	1655 1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
1665	1670	1675 1680
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
	1685	1690 1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser		

1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg		
1745	1750	
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<213> Homo sapiens		
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Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser		
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Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu		
20	25	30
Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu		
35	40	45
Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys		
50	55	60
Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu		
65	70	75 80
Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu		
85	90	95
Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val		
100	105	110
Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys		
115	120	125
Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val		
130	135	140
Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val		
145	150	155 160
Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys		
165	170	175
Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp		
180	185	190
Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe		
195	200	205

Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu	210	215	220	
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr	225	230	235	240
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His	245	250	255	
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe	260	265	270	
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys	275	280	285	
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly	290	295	300	
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile	305	310	315	320
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr	325	330	335	
Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser	Val	Val	Arg	Lys	Ile	Gly	Gly	Thr	340	345	350	
Ala	Ile	Gln	Leu	Asn	Val	Phe	Gln	Tyr	Leu	Thr	Arg	Leu	Leu	Gln	Ser	355	360	365	
Leu	Ala	Ser	Gly	Gly	Asn	Asp	Cys	Thr	Thr	Ser	Thr	Ala	Cys	Met	Cys	370	375	380	
Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val	Leu	Thr	Ser	Leu	Glu	Leu	His	Thr	385	390	395	400
Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile	Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala	405	410	415	
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly	420	425	430	
Leu	Gly	Ile	Ile	Leu	Asp	Ser	Val	Cys	Gly	Met	Phe	Pro	His	Leu	Leu	435	440	445	
Ser	Pro	Leu	Leu	Gln	Leu	Leu	Arg	Ala	Leu	Val	Ser	Gly	Lys	Ser	Thr	450	455	460	
Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu	Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu	465	470	475	480
Leu	Tyr	Lys	His	Lys	Pro	His	Asp	Val	Ile	Ser	His	Glu	Asp	Gly	Thr	485	490	495	
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln	500	505	510	

Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp	515	520	525
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr	530	535	540
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala	545	550	555
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val	565	570	575
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro	580	585	590
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	595	600	605
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	610	615	620
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr	625	630	635
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	645	650	655
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	660	665	670
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	675	680	685
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser	690	695	700
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro	705	710	715
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile	725	730	735
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His	740	745	750
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys	755	760	765
Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile	770	775	780
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro	785	790	795
Arg	Ser	Asp	Gly	Ala	Glu	Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys	805	810	815

Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120

His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420

Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725

Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740

Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 15
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 <212> PRT
 <213> Homo sapiens

<400> 15
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
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Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30

Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
 50 55 60

Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95

Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125

Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160

Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190

Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220

Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255
 Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270
 Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285
 Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300
 Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320
 Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335
 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350
 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365
 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380
 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400
 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415
 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430
 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445
 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460
 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480
 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495
 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510
 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525
 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540

Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560
 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575
 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590
 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605
 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620
 Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845

Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
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 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser
 1140 1145 1150

Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Val Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455

Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<400> 16

Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
20 25 30

Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
50 55 60

Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
85 90 95

Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
115 120 125

Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
145 150 155 160

Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
180 185 190

Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
210 215 220

Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
245 250 255

86

260					265					270					
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys
	275						280					285			
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly
	290					295					300				
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile
305					310					315					320
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr
				325					330					335	
Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser	Val	Val	Arg	Lys	Ile	Gly	Gly	Thr
			340					345					350		
Ala	Ile	Gln	Leu	Asn	Val	Phe	Gln	Tyr	Leu	Thr	Arg	Leu	Leu	Gln	Ser
	355						360					365			
Leu	Ala	Ser	Gly	Gly	Asn	Asp	Cys	Thr	Thr	Ser	Thr	Ala	Cys	Met	Cys
	370					375					380				
Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val	Leu	Thr	Ser	Leu	Glu	Leu	His	Thr
385					390					395					400
Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile	Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala
			405					410					415		
Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe	Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly
			420					425					430		
Leu	Gly	Ile	Ile	Leu	Asp	Ser	Val	Cys	Gly	Met	Phe	Pro	His	Leu	Leu
	435						440					445			
Ser	Pro	Leu	Leu	Gln	Leu	Leu	Arg	Ala	Leu	Val	Ser	Gly	Lys	Ser	Thr
	450					455					460				
Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu	Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu
465					470					475					480
Leu	Tyr	Lys	His	Lys	Pro	His	Asp	Val	Ile	Ser	His	Glu	Asp	Gly	Thr
			485					490					495		
Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys	Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln
			500					505					510		
Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly	Thr	Val	Gly	Gln	Val	Met	Leu	Asp
	515						520					525			
Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp	Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr
	530					535					540				
Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met	Leu	Leu	His	Val	Val	Ser	Thr	Ala
545					550					555					560
Asp	Val	Ile	Gln	His	Cys	Gln	Arg	Val	Lys	Pro	Ile	Ile	Asp	Leu	Val

565								570					575			
His	Lys	Val	Ile	Ser	Thr	Asp	Leu	Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro	
			580					585				590				
Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	
			595					600				605				
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	
			610					615				620				
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr	
			625					630				635				
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	
			645					650				655				
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	
			660					665				670				
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	
			675					680				685				
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser	
			690					695				700				
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro	
			705					710				715				
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile	
			725					730				735				
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His	
			740					745				750				
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys	
			755					760				765				
Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile	
			770					775				780				
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro	
			785					790				795				
Arg	Ser	Asp	Gly	Ala	Glu	Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys	
			805					810				815				
Thr	Val	Lys	Leu	Ala	Phe	Ser	Val	Thr	Asn	Asn	Val	Ile	Arg	Leu	Lys	
			820					825				830				
Pro	Pro	Ser	Asn	Val	Val	Ser	Pro	Leu	Glu	Gln	Ala	Leu	Ser	Gln	His	
			835					840				845				
Gly	Ala	His	Gly	Asn	Asn	Leu	Ile	Ala	Val	Leu	Ala	Lys	Tyr	Ile	Tyr	
			850					855				860				
His	Lys	His	Asp	Pro	Ala	Leu	Pro	Arg	Leu	Ala	Ile	Gln	Leu	Leu	Lys	

865		870		875		880
Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn						
		885		890		895
Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys						
		900		905		910
Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val						
		915		920		925
Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu						
		930		935		940
Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp						
945		950		955		960
Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp						
		965		970		975
Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu						
		980		985		990
His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg						
		995		1000		1005
Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr						
		1010		1015		1020
Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys						
1025		1030		1035		1040
Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys						
		1045		1050		1055
Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile						
		1060		1065		1070
Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val						
		1075		1080		1085
His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr						
		1090		1095		1100
Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr						
1105		1110		1115		1120
His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu						
		1125		1130		1135
Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser						
		1140		1145		1150
Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu						
		1155		1160		1165
Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile						

1170	1175	1180
Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln		
1185	1190	1195 1200
Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr		
	1205	1210 1215
Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser		
	1220	1225 1230
Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala		
	1235	1240 1245
Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu		
	1250	1255 1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg		
	1265	1270 1275 1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu		
	1285	1290 1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg		
	1300	1305 1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		
	1315	1320 1325
Arg Met Arg Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
	1330	1335 1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
	1345	1350 1355 1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
	1365	1370 1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
	1380	1385 1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
	1395	1400 1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
	1410	1415 1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
	1425	1430 1435 1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
	1445	1450 1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
	1460	1465 1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		

1475	1480	1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His 1490	1495	1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln 1505	1510	1515 1520
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser 1525	1530	1535
Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His 1540	1545	1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala 1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser 1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr 1585	1590	1595 1600
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala 1605	1610	1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys 1620	1625	1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr 1635	1640	1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr 1650	1655	1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His 1665	1670	1675 1680
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser 1685	1690	1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser 1700	1705	1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser 1715	1720	1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val 1730	1735	1740
Gln Ala Phe Val Arg His Met Gln Arg 1745	1750	

<210> 17
 <211> 1753
 <212> PRT

<213> Homo sapiens

<400> 17

Met	Ile	Arg	Lys	Ser	Lys	Ile	Thr	Ser	Val	Leu	Ser	Phe	Cys	Arg	Ser		
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Ser	Arg	Glu	Leu	Trp	Thr	Ile	Leu	Leu	Gly	Arg	Ser	Ala	Leu	Arg	Glu		
		20						25					30				
Leu	Ser	Gln	Ile	Glu	Ala	Glu	Leu	Asn	Lys	His	Trp	Arg	Arg	Leu	Leu		
		35					40					45					
Glu	Gly	Leu	Ser	Tyr	Tyr	Lys	Pro	Pro	Ser	Pro	Ser	Ser	Ala	Glu	Lys		
	50					55					60						
Val	Lys	Ala	Asn	Lys	Asp	Val	Ala	Ser	Pro	Leu	Lys	Glu	Leu	Gly	Leu		
65					70					75					80		
Arg	Ile	Ser	Lys	Phe	Leu	Gly	Leu	Asp	Glu	Glu	Gln	Ser	Val	Gln	Leu		
			85						90					95			
Leu	Gln	Cys	Tyr	Leu	Gln	Glu	Asp	Tyr	Arg	Gly	Thr	Arg	Asp	Ser	Val		
		100						105					110				
Lys	Thr	Val	Leu	Gln	Asp	Glu	Arg	Gln	Ser	Gln	Ala	Leu	Ile	Leu	Lys		
		115					120					125					
Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val		
	130					135					140						
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val		
145				150					155					160			
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys		
			165						170					175			
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp		
		180						185					190				
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe		
	195					200						205					
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu		
	210					215					220						
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr		
225				230						235				240			
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His		
			245						250					255			
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe		
		260						265					270				
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys		
		275					280					285					

Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
290 295 300
Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
305 310 315 320
Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
325 330 335
Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
340 345 350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
355 360 365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
370 375 380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
385 390 395 400
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
405 410 415
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
420 425 430
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
435 440 445
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
450 455 460
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
465 470 475 480
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
485 490 495
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
500 505 510
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
515 520 525
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
530 535 540
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
545 550 555 560
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
565 570 575
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
580 585 590

Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu	Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	595	600	605	
Ser	Pro	Pro	Val	Asp	Val	Ile	Ala	Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	610	615	620	
Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys	Val	Trp	Thr	Asp	Leu	Arg	His	Thr	625	630	635	640
Gly	Phe	Leu	Pro	Phe	Val	Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	645	650	655	
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	660	665	670	
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	675	680	685	
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser	690	695	700	
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro	705	710	715	720
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile	725	730	735	
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His	740	745	750	
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys	755	760	765	
Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile	770	775	780	
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro	785	790	795	800
Arg	Ser	Asp	Gly	Ala	Glu	Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys	805	810	815	
Thr	Val	Lys	Leu	Ala	Phe	Ser	Val	Thr	Asn	Asn	Val	Ile	Arg	Leu	Lys	820	825	830	
Pro	Pro	Ser	Asn	Val	Val	Ser	Pro	Leu	Glu	Gln	Ala	Leu	Ser	Gln	His	835	840	845	
Gly	Ala	His	Gly	Asn	Asn	Leu	Ile	Ala	Val	Leu	Ala	Lys	Tyr	Ile	Tyr	850	855	860	
His	Lys	His	Asp	Pro	Ala	Leu	Pro	Arg	Leu	Ala	Ile	Gln	Leu	Leu	Lys	865	870	875	880
Arg	Leu	Ala	Thr	Val	Ala	Pro	Met	Ser	Val	Tyr	Ala	Cys	Leu	Gly	Asn	885	890	895	

Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925
 Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200

Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230
 Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Tyr Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500

Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535
 Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 18

<211> 1753

<212> PRT

<213> Homo sapiens

<400> 18

Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
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Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30
 Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu
 35 40 45
 Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu Lys
 50 55 60
 Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly Leu
 65 70 75 80
 Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln Leu
 85 90 95
 Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser Val
 100 105 110
 Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu Lys
 115 120 125
 Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys Val
 130 135 140
 Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg Val
 145 150 155 160
 Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser Lys
 165 170 175
 Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr Trp
 180 185 190
 Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp Phe
 195 200 205
 Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe Leu
 210 215 220
 Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu Thr
 225 230 235 240
 Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg His
 245 250 255
 Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr Phe
 260 265 270
 Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His Lys
 275 280 285
 Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp Gly
 290 295 300
 Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp Ile
 305 310 315 320

Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His Thr
 325 330 335
 Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly Thr
 340 345 350
 Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser
 355 360 365
 Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys
 370 375 380
 Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr
 385 390 395 400
 Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala
 405 410 415
 Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly
 420 425 430
 Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu
 435 440 445
 Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr
 450 455 460
 Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu
 465 470 475 480
 Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr
 485 490 495
 Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln
 500 505 510
 Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp
 515 520 525
 Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr
 530 535 540
 Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala
 545 550 555 560
 Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val
 565 570 575
 His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro
 580 585 590
 Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile
 595 600 605
 Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val
 610 615 620

Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr
 625 630 635 640
 Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met
 645 650 655
 Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu Met
 660 665 670
 Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe Leu
 675 680 685
 Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln Ser
 690 695 700
 Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys Glu Met Leu Pro
 705 710 715 720
 Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln Ile
 725 730 735
 Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys His
 740 745 750
 Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu Cys
 755 760 765
 Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn Ile
 770 775 780
 Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln Pro
 785 790 795 800
 Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile Lys
 805 810 815
 Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu Lys
 820 825 830
 Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln His
 835 840 845
 Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile Tyr
 850 855 860
 His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu Lys
 865 870 875 880
 Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly Asn
 885 890 895
 Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser Lys
 900 905 910
 Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr Val
 915 920 925

Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu Glu
 930 935 940
 Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met Trp
 945 950 955 960
 Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp
 965 970 975
 Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe Leu
 980 985 990
 His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu Arg
 995 1000 1005
 Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr
 1010 1015 1020
 Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys
 1025 1030 1035 1040
 Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys
 1045 1050 1055
 Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile
 1060 1065 1070
 Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala Val
 1075 1080 1085
 His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr
 1090 1095 1100
 Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr Thr
 1105 1110 1115 1120
 His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln Leu
 1125 1130 1135
 Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro Ser
 1140 1145 1150
 Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu Leu
 1155 1160 1165
 Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ser Val Asp Glu Ile
 1170 1175 1180
 Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln
 1185 1190 1195 1200
 Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr
 1205 1210 1215
 Val Leu Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser
 1220 1225 1230

Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala
 1235 1240 1245
 Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu Gly Ser Ala Thr Glu
 1250 1255 1260
 Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg
 1265 1270 1275 1280
 Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu
 1285 1290 1295
 Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg
 1300 1305 1310
 Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu
 1315 1320 1325
 Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu
 1330 1335 1340
 Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala
 1345 1350 1355 1360
 Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu
 1365 1370 1375
 Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu
 1380 1385 1390
 Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met
 1395 1400 1405
 Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu
 1410 1415 1420
 Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala
 1425 1430 1435 1440
 Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr
 1445 1450 1455
 Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe
 1460 1465 1470
 His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu
 1475 1480 1485
 Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His
 1490 1495 1500
 Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln
 1505 1510 1515 1520
 Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser
 1525 1530 1535

Lys Gln Pro Ala Ala Gln Thr Glu Ala Ser Glu Gln Gln Ala Leu His
 1540 1545 1550
 Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala
 1555 1560 1565
 Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser
 1570 1575 1580
 Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr
 1585 1590 1595 1600
 Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala
 1605 1610 1615
 Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys
 1620 1625 1630
 Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr
 1635 1640 1645
 Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr
 1650 1655 1660
 Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His
 1665 1670 1675 1680
 Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser
 1685 1690 1695
 Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser
 1700 1705 1710
 Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser
 1715 1720 1725
 Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val
 1730 1735 1740
 Gln Ala Phe Val Arg His Met Gln Arg
 1745 1750

<210> 19
 <211> 1753
 <212> PRT
 <213> Homo sapiens

<400> 19
 Met Ile Arg Lys Ser Lys Ile Thr Ser Val Leu Ser Phe Cys Arg Ser
 1 5 10 15
 Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu
 20 25 30
 Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu Leu

35					40					45						
Glu	Gly	Leu	Ser	Tyr	Tyr	Lys	Pro	Pro	Ser	Pro	Ser	Ser	Ala	Glu	Lys	
50					55					60						
Val	Lys	Ala	Asn	Lys	Asp	Val	Ala	Ser	Pro	Leu	Lys	Glu	Leu	Gly	Leu	
65					70					75					80	
Arg	Ile	Ser	Lys	Phe	Leu	Gly	Leu	Asp	Glu	Glu	Gln	Ser	Val	Gln	Leu	
85					90					95						
Leu	Gln	Cys	Tyr	Leu	Gln	Glu	Asp	Tyr	Arg	Gly	Thr	Arg	Asp	Ser	Val	
100					105					110						
Lys	Thr	Val	Leu	Gln	Asp	Glu	Arg	Gln	Ser	Gln	Ala	Leu	Ile	Leu	Lys	
115					120					125						
Ile	Ala	Asp	Tyr	Tyr	Tyr	Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val	
130					135					140						
Leu	His	Leu	Leu	Thr	Tyr	Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val	
145					150					155					160	
Glu	Tyr	Ala	Asp	Cys	Val	Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys	
165					170					175						
Tyr	Arg	Gln	Gln	Phe	Glu	Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp	
180					185					190						
Glu	Thr	His	Gly	Asn	Leu	Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe	
195					200					205						
Val	Gln	Cys	Leu	Arg	Glu	Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu	
210					215					220						
Tyr	Tyr	Ala	Tyr	Phe	Glu	Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr	
225					230					235					240	
Lys	Met	Phe	Lys	Glu	Gln	Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His	
245					250					255						
Leu	Val	Asp	Glu	Thr	Met	Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe	
260					265					270						
Ser	Ala	Leu	Ile	Leu	Val	Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys	
275					280					285						
Cys	Ala	Leu	Asp	Asp	Arg	Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly	
290					295					300						
Leu	Ile	Cys	Gln	Asp	Met	Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile	
305					310					315					320	
Pro	His	His	Ala	Pro	Val	Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr	
325					330					335						
Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser	Val	Val	Arg	Lys	Ile	Gly	Gly	Thr	

340	345	350
Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser		
355	360	365
Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met Cys		
370	375	380
Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His Thr		
385	390	395
Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu Ala		
	405	410
Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly		
	420	425
Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu Leu		
	435	440
Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser Thr		
	450	455
Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu		
	465	470
Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly Thr		
	485	490
Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln		
	500	505
Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu Asp		
	515	520
Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr		
	530	535
Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr Ala		
	545	550
Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu Val		
	565	570
His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro		
	580	585
Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val Ile		
	595	600
Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr Val		
	610	615
Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His Thr		
	625	630
Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln Met		
	635	640

645					650					655					
Ile	Ser	Ala	Glu	Gly	Met	Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met
			660					665					670		
Asn	Ser	Glu	Gln	Pro	Gln	Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu
		675					680					685			
Arg	Leu	Ile	Thr	Thr	Leu	Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser
		690					695					700			
Gln	Gly	Leu	Val	Pro	Cys	Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro
705						710					715				720
Ser	Tyr	His	Lys	Trp	Arg	Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile
				725					730					735	
Gly	Cys	Leu	Ile	Leu	Glu	Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His
			740					745					750		
Glu	Thr	Asp	Leu	His	Ser	Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys
		755					760					765			
Ile	Cys	Ser	Leu	Ala	Tyr	Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile
		770					775					780			
Met	Gly	Ile	Gly	Val	Asp	Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro
785							790					795			800
Arg	Ser	Asp	Gly	Ala	Glu	Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys
			805					810						815	
Thr	Val	Lys	Leu	Ala	Phe	Ser	Val	Thr	Asn	Asn	Val	Ile	Arg	Leu	Lys
			820					825					830		
Pro	Pro	Ser	Asn	Val	Val	Ser	Pro	Leu	Glu	Gln	Ala	Leu	Ser	Gln	His
		835					840					845			
Gly	Ala	His	Gly	Asn	Asn	Leu	Ile	Ala	Val	Leu	Ala	Lys	Tyr	Ile	Tyr
		850				855					860				
His	Lys	His	Asp	Pro	Ala	Leu	Pro	Arg	Leu	Ala	Ile	Gln	Leu	Leu	Lys
865						870			875					880	
Arg	Leu	Ala	Thr	Val	Ala	Pro	Met	Ser	Val	Tyr	Ala	Cys	Leu	Gly	Asn
			885						890					895	
Asp	Ala	Ala	Ala	Ile	Arg	Asp	Ala	Phe	Leu	Thr	Arg	Leu	Gln	Ser	Lys
			900					905					910		
Ile	Glu	Asp	Met	Arg	Ile	Lys	Val	Met	Ile	Leu	Glu	Phe	Leu	Thr	Val
		915					920					925			
Ala	Val	Glu	Thr	Gln	Pro	Gly	Leu	Ile	Glu	Leu	Phe	Leu	Asn	Leu	Glu
		930				935					940				
Val	Lys	Asp	Gly	Ser	Asp	Gly	Ser	Lys	Glu	Phe	Ser	Leu	Gly	Met	Trp

945	950	955	960
Ser Cys Leu His	Ala Val Leu Glu Leu Ile	Asp Ser Gln Gln Gln Asp	
	965	970	975
Arg Tyr Trp Cys	Pro Pro Leu Leu His	Arg Ala Ala Ile Ala Phe Leu	
	980	985	990
His Ala Leu Trp	Gln Asp Arg Arg Asp	Ser Ala Met Leu Val Leu Arg	
	995	1000	1005
Thr Lys Pro Lys	Phe Trp Glu Asn Leu Thr	Ser Pro Leu Phe Gly Thr	
	1010	1015	1020
Leu Ser Pro Pro	Ser Glu Thr Ser Glu Pro Ser	Ile Leu Glu Thr Cys	
	1025	1030	1035
Ala Leu Ile Met	Lys Ile Ile Cys Leu Glu Ile	Tyr Tyr Val Val Lys	
	1045	1050	1055
Gly Ser Leu Asp	Gln Ser Leu Lys Asp Thr	Leu Lys Lys Phe Ser Ile	
	1060	1065	1070
Glu Lys Arg Phe	Ala Tyr Trp Ser Gly Tyr Val	Lys Ser Leu Ala Val	
	1075	1080	1085
His Val Ala Glu	Thr Glu Gly Ser Ser Cys Thr	Ser Leu Leu Glu Tyr	
	1090	1095	1100
Gln Met Leu Val	Ser Ala Trp Arg Met Leu Leu	Ile Ile Ala Thr Thr	
	1105	1110	1115
His Ala Asp Ile	Met His Leu Thr Asp Ser Val	Val Arg Arg Gln Leu	
	1125	1130	1135
Phe Leu Asp Val	Leu Asp Gly Thr Lys Ala Leu	Leu Leu Val Pro Ser	
	1140	1145	1150
Ser Val Asn Cys	Leu Arg Leu Gly Ser Met Lys	Cys Thr Leu Leu Leu	
	1155	1160	1165
Ile Leu Leu Arg	Gln Trp Lys Arg Glu Leu Gly	Ser Val Asp Glu Ile	
	1170	1175	1180
Leu Gly Pro Leu	Thr Glu Ile Leu Glu Gly Val	Leu Gln Ala Asp Gln	
	1185	1190	1195
Gln Leu Met Glu	Lys Thr Lys Ala Lys Val Phe	Ser Ala Phe Ile Thr	
	1205	1210	1215
Val Leu Gln Met	Lys Glu Met Lys Val Ser Asp	Ile Pro Gln Tyr Ser	
	1220	1225	1230
Gln Leu Val Leu	Asn Val Cys Glu Thr Leu Gln	Glu Glu Val Ile Ala	
	1235	1240	1245
Leu Phe Asp Gln	Thr Arg His Ser Leu Ala Leu	Gly Ser Ala Thr Glu	

1250	1255	1260
Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser Arg Ser Arg His Arg		
1265	1270	1275 1280
Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His Leu Ala Lys Glu		
	1285	1290 1295
Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu Gln Val Thr Arg		
	1300	1305 1310
Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu Glu Val Ser Leu		
	1315	1320 1325
Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Thr Leu His Leu Leu		
	1330	1335 1340
Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala Val Ala Gly Ala		
1345	1350	1355 1360
Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu		
	1365	1370 1375
Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala Ser Arg Lys Ser Leu		
	1380	1385 1390
Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser Met Ser Leu Met		
	1395	1400 1405
Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu Pro Glu Ala Leu		
	1410	1415 1420
Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln Cys Leu Asn Ala		
1425	1430	1435 1440
Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu Glu Ala Asp His Thr		
	1445	1450 1455
Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met Lys Glu Trp His Phe		
	1460	1465 1470
His Leu Pro Gln Leu Met Arg Asp Ile Gln Val Asn Leu Gly Tyr Leu		
	1475	1480 1485
Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys Met Leu Gln His		
	1490	1495 1500
Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser Ala Val Ala Gln		
1505	1510	1515 1520
Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala Ala Pro Ser Ser Ser		
	1525	1530 1535
Lys Gln Pro Ala Ala Gln Thr Glu Ala Ser Glu Gln Gln Ala Leu His		
	1540	1545 1550
Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala		

1555	1560	1565
Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser		
1570	1575	1580
Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr		
1585	1590	1595 1600
Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala		
	1605	1610 1615
Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys		
	1620	1625 1630
Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr		
	1635	1640 1645
Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr		
	1650	1655 1660
Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His		
	1665	1670 1675 1680
Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser		
	1685	1690 1695
Thr Leu Leu Ser Ser Leu Ser Arg Tyr His Arg Arg Gly Ala Pro Ser		
	1700	1705 1710
Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser		
	1715	1720 1725
Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val		
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Gln Ala Phe Val Arg His Met Gln Arg		
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 35 40 45
 Pro Ser Pro Ser Ser Ala Glu Lys Val Lys Ala Asn Lys Asp Val Ala
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 Ser Pro Leu Lys Glu Leu Gly Leu Arg Ile Ser Lys Phe Leu Gly Leu
 65 70 75 80
 Asp Glu Glu Gln Ser Val Gln Leu Leu Gln Cys Tyr Leu Gln Glu Asp
 85 90 95
 Tyr Arg Gly Thr Arg Asp Ser Val Lys Thr Val Leu Gln Asp Glu Arg
 100 105 110
 Gln Ser Gln Ala Leu Ile Leu Lys Ile Ala Asp Tyr Tyr Tyr Glu Glu
 115 120 125
 Arg Thr Cys Ile Leu Arg Cys Val Leu His Leu Leu Thr Tyr Phe Gln
 130 135 140
 Asp Glu Arg His Pro Tyr Arg Val Glu Tyr Ala Asp Cys Val Asp Lys
 145 150 155 160
 Leu Glu Lys Glu Leu Val Ser Lys Tyr Arg Gln Gln Phe Glu Glu Leu
 165 170 175
 Tyr Lys Thr Glu Ala Pro Thr Trp Glu Thr His Gly Asn Leu Met Thr
 180 185 190
 Glu Arg Gln Val Ser Arg Trp Phe Val Gln Cys Leu Arg Glu Gln Ser
 195 200 205
 Met Leu Leu Glu Ile Ile Phe Leu Tyr Tyr Ala Tyr Phe Glu Met Ala
 210 215 220
 Pro Ser Asp Leu Leu Val Leu Thr Lys Met Phe Lys Glu Gln Gly Phe
 225 230 235 240
 Gly Ser Arg Gln Thr Asn Arg His Leu Val Asp Glu Thr Met Asp Pro
 245 250 255
 Phe Val Asp Arg Ile Gly Tyr Phe Ser Ala Leu Ile Leu Val Glu Gly
 260 265 270
 Met Asp Ile Glu Ser Leu His Lys Cys Ala Leu Asp Asp Arg Arg Glu
 275 280 285
 Leu His Gln Phe Ala Gln Asp Gly Leu Ile Cys Gln Asp Met Asp Cys
 290 295 300
 Leu Met Leu Thr Phe Gly Asp Ile Pro His His Ala Pro Val Leu Leu
 305 310 315 320

Ala	Trp	Ala	Leu	Leu	Arg	His	Thr	Leu	Asn	Pro	Glu	Glu	Thr	Ser	Ser		
				325					330					335			
Val	Val	Arg	Lys	Ile	Gly	Gly	Thr	Ala	Ile	Gln	Leu	Asn	Val	Phe	Gln		
			340					345					350				
Tyr	Leu	Thr	Arg	Leu	Leu	Gln	Ser	Leu	Ala	Ser	Gly	Gly	Asn	Asp	Cys		
		355					360					365					
Thr	Thr	Ser	Thr	Ala	Cys	Met	Cys	Val	Tyr	Gly	Leu	Leu	Ser	Phe	Val		
	370					375					380						
Leu	Thr	Ser	Leu	Glu	Leu	His	Thr	Leu	Gly	Asn	Gln	Gln	Asp	Ile	Ile		
385					390					395					400		
Asp	Thr	Ala	Cys	Glu	Val	Leu	Ala	Asp	Pro	Ser	Leu	Pro	Glu	Leu	Phe		
			405					410						415			
Trp	Gly	Thr	Glu	Pro	Thr	Ser	Gly	Leu	Gly	Ile	Ile	Leu	Asp	Ser	Val		
			420					425					430				
Cys	Gly	Met	Phe	Pro	His	Leu	Leu	Ser	Pro	Leu	Leu	Gln	Leu	Leu	Arg		
		435					440					445					
Ala	Leu	Val	Ser	Gly	Lys	Ser	Thr	Ala	Lys	Lys	Val	Tyr	Ser	Phe	Leu		
	450					455					460						
Asp	Lys	Met	Ser	Phe	Tyr	Asn	Glu	Leu	Tyr	Lys	His	Lys	Pro	His	Asp		
465					470					475					480		
Val	Ile	Ser	His	Glu	Asp	Gly	Thr	Leu	Trp	Arg	Arg	Gln	Thr	Pro	Lys		
			485						490					495			
Leu	Leu	Tyr	Pro	Leu	Gly	Gly	Gln	Thr	Asn	Leu	Arg	Ile	Pro	Gln	Gly		
			500					505					510				
Thr	Val	Gly	Gln	Val	Met	Leu	Asp	Asp	Arg	Ala	Tyr	Leu	Val	Arg	Trp		
		515					520					525					
Glu	Tyr	Ser	Tyr	Ser	Ser	Trp	Thr	Leu	Phe	Thr	Cys	Glu	Ile	Glu	Met		
	530					535					540						
Leu	Leu	His	Val	Val	Ser	Thr	Ala	Asp	Val	Ile	Gln	His	Cys	Gln	Arg		
545					550				555						560		
Val	Lys	Pro	Ile	Ile	Asp	Leu	Val	His	Lys	Val	Ile	Ser	Thr	Asp	Leu		
			565						570					575			
Ser	Ile	Ala	Asp	Cys	Leu	Leu	Pro	Ile	Thr	Ser	Arg	Ile	Tyr	Met	Leu		
		580						585					590				
Leu	Gln	Arg	Leu	Thr	Thr	Val	Ile	Ser	Pro	Pro	Val	Asp	Val	Ile	Ala		
		595					600					605					
Ser	Cys	Val	Asn	Cys	Leu	Thr	Val	Leu	Ala	Ala	Arg	Asn	Pro	Ala	Lys		
	610					615					620						

Val Trp Thr Asp Leu Arg His Thr Gly Phe Leu Pro Phe Val Ala His
625 630 635 640
Pro Val Ser Ser Leu Ser Gln Met Ile Ser Ala Glu Gly Met Asn Ala
645 650 655
Gly Gly Tyr Gly Asn Leu Leu Met Asn Ser Glu Gln Pro Gln Gly Glu
660 665 670
Tyr Gly Val Thr Ile Ala Phe Leu Arg Leu Ile Thr Thr Leu Val Lys
675 680 685
Gly Gln Leu Gly Ser Thr Gln Ser Gln Gly Leu Val Pro Cys Val Met
690 695 700
Phe Val Leu Lys Glu Met Leu Pro Ser Tyr His Lys Trp Arg Tyr Asn
705 710 715 720
Ser His Gly Val Arg Glu Gln Ile Gly Cys Leu Ile Leu Glu Leu Ile
725 730 735
His Ala Ile Leu Asn Leu Cys His Glu Thr Asp Leu His Ser Ser His
740 745 750
Thr Pro Ser Leu Gln Phe Leu Cys Ile Cys Ser Leu Ala Tyr Thr Glu
755 760 765
Ala Gly Gln Thr Val Ile Asn Ile Met Gly Ile Gly Val Asp Thr Ile
770 775 780
Asp Met Val Met Ala Ala Gln Pro Arg Ser Asp Gly Ala Glu Gly Gln
785 790 795 800
Gly Gln Gly Gln Leu Leu Ile Lys Thr Val Lys Leu Ala Phe Ser Val
805 810 815
Thr Asn Asn Val Ile Arg Leu Lys Pro Pro Ser Asn Val Val Ser Pro
820 825 830
Leu Glu Gln Ala Leu Ser Gln His Gly Ala His Gly Asn Asn Leu Ile
835 840 845
Ala Val Leu Ala Lys Tyr Ile Tyr His Lys His Asp Pro Ala Leu Pro
850 855 860
Arg Leu Ala Ile Gln Leu Leu Lys Arg Leu Ala Thr Val Ala Pro Met
865 870 875 880
Ser Val Tyr Ala Cys Leu Gly Asn Asp Ala Ala Ala Ile Arg Asp Ala
885 890 895
Phe Leu Thr Arg Leu Gln Ser Lys Ile Glu Asp Met Arg Ile Lys Val
900 905 910
Met Ile Leu Glu Phe Leu Thr Val Ala Val Glu Thr Gln Pro Gly Leu
915 920 925

Ile Glu Leu Phe Leu Asn Leu Glu Val Lys Asp Gly Ser Asp Gly Ser
 930 935 940
 Lys Glu Phe Ser Leu Gly Met Trp Ser Cys Leu His Ala Val Leu Glu
 945 950 955 960
 Leu Ile Asp Ser Gln Gln Gln Asp Arg Tyr Trp Cys Pro Pro Leu Leu
 965 970 975
 His Arg Ala Ala Ile Ala Phe Leu His Ala Leu Trp Gln Asp Arg Arg
 980 985 990
 Asp Ser Ala Met Leu Val Leu Arg Thr Lys Pro Lys Phe Trp Glu Asn
 995 1000 1005
 Leu Thr Ser Pro Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu Thr Ser
 1010 1015 1020
 Glu Pro Ser Ile Leu Glu Thr Cys Ala Leu Ile Met Lys Ile Ile Cys
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 Leu Glu Ile Tyr Tyr Val Val Lys Gly Ser Leu Asp Gln Ser Leu Lys
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 Asp Thr Leu Lys Lys Phe Ser Ile Glu Lys Arg Phe Ala Tyr Trp Ser
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 Gly Tyr Val Lys Ser Leu Ala Val His Val Ala Glu Thr Glu Gly Ser
 1075 1080 1085
 Ser Cys Thr Ser Leu Leu Glu Tyr Gln Met Leu Val Ser Ala Trp Arg
 1090 1095 1100
 Met Leu Leu Ile Ile Ala Thr Thr His Ala Asp Ile Met His Leu Thr
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 Asp Ser Val Val Arg Arg Gln Leu Phe Leu Asp Val Leu Asp Gly Thr
 1125 1130 1135
 Lys Ala Leu Leu Leu Val Pro Ala Ser Val Asn Cys Leu Arg Leu Gly
 1140 1145 1150
 Ser Met Lys Cys Thr Leu Leu Leu Ile Leu Leu Arg Gln Trp Lys Arg
 1155 1160 1165
 Glu Leu Gly Ser Val Asp Glu Ile Leu Gly Pro Leu Thr Glu Ile Leu
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 Glu Gly Val Leu Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala
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 Lys Val Phe Ser Ala Phe Ile Thr Val Leu Gln Met Lys Glu Met Lys
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 Val Ser Asp Ile Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu
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Thr Leu Gln Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser
 1235 1240 1245
 Leu Ala Leu Gly Ser Ala Thr Glu Asp Lys Asp Ser Met Glu Thr Asp
 1250 1255 1260
 Asp Cys Ser Arg Ser Arg His Arg Asp Gln Arg Asp Gly Val Cys Val
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 Leu Gly Leu His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly
 1285 1290 1295
 Asp Ser Trp Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu
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 Leu Thr Thr Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe
 1315 1320 1325
 Thr Glu Ala Thr Leu His Leu Leu Leu Thr Leu Ala Arg Thr Gln Gln
 1330 1335 1340
 Gly Ala Thr Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu
 1345 1350 1355 1360
 Pro Leu Leu Ser Val Tyr Gln Leu Ser Thr Asn Gly Thr Ala Gln Thr
 1365 1370 1375
 Pro Ser Ala Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val
 1380 1385 1390
 Tyr Arg Leu Ser Met Ser Leu Met Glu Gln Leu Leu Lys Thr Leu Arg
 1395 1400 1405
 Tyr Asn Phe Leu Pro Glu Ala Leu Asp Phe Val Gly Val His Gln Glu
 1410 1415 1420
 Arg Thr Leu Gln Cys Leu Asn Ala Val Arg Thr Val Gln Ser Leu Ala
 1425 1430 1435 1440
 Cys Leu Glu Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser
 1445 1450 1455
 Asn Phe Met Lys Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp
 1460 1465 1470
 Ile Gln Val Asn Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser Leu Leu
 1475 1480 1485
 His Ser Arg Lys Met Leu Gln His Tyr Leu Gln Asn Lys Asn Gly Asp
 1490 1495 1500
 Gly Leu Pro Ser Ala Val Ala Gln Arg Val Gln Arg Pro Pro Ser Ala
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 Ala Ser Ala Ala Pro Ser Ser Ser Lys Gln Pro Ala Ala Asp Thr Glu
 1525 1530 1535

Ala Ser Glu Gln Gln Ala Leu His Thr Val Gln Tyr Gly Leu Leu Lys
 1540 1545 1550
 Ile Leu Ser Lys Thr Leu Ala Ala Leu Arg His Phe Thr Pro Asp Val
 1555 1560 1565
 Cys Gln Ile Leu Leu Asp Gln Ser Leu Asp Leu Ala Glu Tyr Asn Phe
 1570 1575 1580
 Leu Phe Ala Leu Ser Phe Thr Thr Pro Thr Phe Asp Ser Glu Val Ala
 1585 1590 1595 1600
 Pro Ser Phe Gly Thr Leu Leu Ala Thr Val Asn Val Ala Leu Asn Met
 1605 1610 1615
 Leu Gly Glu Leu Asp Lys Lys Lys Glu Pro Leu Thr Gln Ala Val Gly
 1620 1625 1630
 Leu Ser Thr Gln Ala Glu Gly Thr Arg Thr Leu Lys Ser Leu Leu Met
 1635 1640 1645
 Phe Thr Met Glu Asn Cys Phe Tyr Leu Leu Ile Ser Gln Ala Met Arg
 1650 1655 1660
 Tyr Leu Arg Asp Pro Ala Val His Pro Arg Asp Lys Gln Arg Met Lys
 1665 1670 1675 1680
 Gln Glu Leu Ser Ser Glu Leu Ser Thr Leu Leu Ser Ser Leu Ser Arg
 1685 1690 1695
 Tyr Phe Arg Arg Gly Ala Pro Ser Ser Pro Ala Thr Gly Val Leu Pro
 1700 1705 1710
 Ser Pro Gln Gly Lys Ser Thr Ser Leu Ser Lys Ala Ser Pro Glu Ser
 1715 1720 1725
 Gln Glu Pro Leu Ile Gln Leu Val Gln Ala Phe Val Arg His Met Gln
 1730 1735 1740

Arg
 1745

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 <213> Homo sapiens

<400> 22
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Ala Ala Ala Gly Gly Pro Cys Val Arg Ser Ser Arg Glu Leu Trp Thr
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Ile Leu Leu Gly Arg Ser Ala Leu Arg Glu Leu Ser Gln Ile Glu Ala

35					40					45					
Glu	Leu	Asn	Lys	His	Trp	Arg	Arg	Leu	Leu	Glu	Gly	Leu	Ser	Tyr	Tyr
50						55					60				
Lys	Pro	Pro	Ser	Pro	Ser	Ser	Ala	Glu	Lys	Val	Lys	Ala	Asn	Lys	Asp
65					70					75					80
Val	Ala	Ser	Pro	Leu	Lys	Glu	Leu	Gly	Leu	Arg	Ile	Ser	Lys	Phe	Leu
				85					90					95	
Gly	Leu	Asp	Glu	Glu	Gln	Ser	Val	Gln	Leu	Leu	Gln	Cys	Tyr	Leu	Gln
		100						105					110		
Glu	Asp	Tyr	Arg	Gly	Thr	Arg	Asp	Ser	Val	Lys	Thr	Val	Leu	Gln	Asp
	115						120					125			
Glu	Arg	Gln	Ser	Gln	Ala	Leu	Ile	Leu	Lys	Ile	Ala	Asp	Tyr	Tyr	Tyr
	130					135					140				
Glu	Glu	Arg	Thr	Cys	Ile	Leu	Arg	Cys	Val	Leu	His	Leu	Leu	Thr	Tyr
145				150						155					160
Phe	Gln	Asp	Glu	Arg	His	Pro	Tyr	Arg	Val	Glu	Tyr	Ala	Asp	Cys	Val
			165						170					175	
Asp	Lys	Leu	Glu	Lys	Glu	Leu	Val	Ser	Lys	Tyr	Arg	Gln	Gln	Phe	Glu
		180						185					190		
Glu	Leu	Tyr	Lys	Thr	Glu	Ala	Pro	Thr	Trp	Glu	Thr	His	Gly	Asn	Leu
	195						200					205			
Met	Thr	Glu	Arg	Gln	Val	Ser	Arg	Trp	Phe	Val	Gln	Cys	Leu	Arg	Glu
	210					215					220				
Gln	Ser	Met	Leu	Leu	Glu	Ile	Ile	Phe	Leu	Tyr	Tyr	Ala	Tyr	Phe	Glu
225				230						235					240
Met	Ala	Pro	Ser	Asp	Leu	Leu	Val	Leu	Thr	Lys	Met	Phe	Lys	Glu	Gln
			245						250					255	
Gly	Phe	Gly	Ser	Arg	Gln	Thr	Asn	Arg	His	Leu	Val	Asp	Glu	Thr	Met
			260					265					270		
Asp	Pro	Phe	Val	Asp	Arg	Ile	Gly	Tyr	Phe	Ser	Ala	Leu	Ile	Leu	Val
		275					280					285			
Glu	Gly	Met	Asp	Ile	Glu	Ser	Leu	His	Lys	Cys	Ala	Leu	Asp	Asp	Arg
	290					295					300				
Arg	Glu	Leu	His	Gln	Phe	Ala	Gln	Asp	Gly	Leu	Ile	Cys	Gln	Asp	Met
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Asp	Cys	Leu	Met	Leu	Thr	Phe	Gly	Asp	Ile	Pro	His	His	Ala	Pro	Val
			325						330					335	
Leu	Leu	Ala	Trp	Ala	Leu	Leu	Arg	His	Thr	Leu	Asn	Pro	Glu	Glu	Thr

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Ser Ser Val Val Arg Lys Ile Gly Gly Thr Ala Ile Gln Leu Asn Val 355 360 365		
Phe Gln Tyr Leu Thr Arg Leu Leu Gln Ser Leu Ala Ser Gly Gly Asn 370 375 380		
Asp Cys Thr Thr Ser Thr Ala Cys Met Cys Val Tyr Gly Leu Leu Ser 385 390 395 400		
Phe Val Leu Thr Ser Leu Glu Leu His Thr Leu Gly Asn Gln Gln Asp 405 410 415		
Ile Ile Asp Thr Ala Cys Glu Val Leu Ala Asp Pro Ser Leu Pro Glu 420 425 430		
Leu Phe Trp Gly Thr Glu Pro Thr Ser Gly Leu Gly Ile Ile Leu Asp 435 440 445		
Ser Val Cys Gly Met Phe Pro His Leu Leu Ser Pro Leu Leu Gln Leu 450 455 460		
Leu Arg Ala Leu Val Ser Gly Lys Ser Thr Ala Lys Lys Val Tyr Ser 465 470 475 480		
Phe Leu Asp Lys Met Ser Phe Tyr Asn Glu Leu Tyr Lys His Lys Pro 485 490 495		
His Asp Val Ile Ser His Glu Asp Gly Thr Leu Trp Arg Arg Gln Thr 500 505 510		
Pro Lys Leu Leu Tyr Pro Leu Gly Gly Gln Thr Asn Leu Arg Ile Pro 515 520 525		
Gln Gly Thr Val Gly Gln Val Met Leu Asp Asp Arg Ala Tyr Leu Val 530 535 540		
Arg Trp Glu Tyr Ser Tyr Ser Ser Trp Thr Leu Phe Thr Cys Glu Ile 545 550 555 560		
Glu Met Leu Leu His Val Val Ser Thr Ala Asp Val Ile Gln His Cys 565 570 575		
Gln Arg Val Lys Pro Ile Ile Asp Leu Val His Lys Val Ile Ser Thr 580 585 590		
Asp Leu Ser Ile Ala Asp Cys Leu Leu Pro Ile Thr Ser Arg Ile Tyr 595 600 605		
Met Leu Leu Gln Arg Leu Thr Thr Val Ile Ser Pro Pro Val Asp Val 610 615 620		
Ile Ala Ser Cys Val Asn Cys Leu Thr Val Leu Ala Ala Arg Asn Pro 625 630 635 640		
Ala Lys Val Trp Thr Asp Leu Arg His Thr Gly Phe Leu Pro Phe Val		

645										650					655				
Ala	His	Pro	Val	Ser	Ser	Leu	Ser	Gln	Met	Ile	Ser	Ala	Glu	Gly	Met				
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Asn	Ala	Gly	Gly	Tyr	Gly	Asn	Leu	Leu	Met	Asn	Ser	Glu	Gln	Pro	Gln				
		675					680					685							
Gly	Glu	Tyr	Gly	Val	Thr	Ile	Ala	Phe	Leu	Arg	Leu	Ile	Thr	Thr	Leu				
	690					695					700								
Val	Lys	Gly	Gln	Leu	Gly	Ser	Thr	Gln	Ser	Gln	Gly	Leu	Val	Pro	Cys				
705					710					715					720				
Val	Met	Phe	Val	Leu	Lys	Glu	Met	Leu	Pro	Ser	Tyr	His	Lys	Trp	Arg				
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Tyr	Asn	Ser	His	Gly	Val	Arg	Glu	Gln	Ile	Gly	Cys	Leu	Ile	Leu	Glu				
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Leu	Ile	His	Ala	Ile	Leu	Asn	Leu	Cys	His	Glu	Thr	Asp	Leu	His	Ser				
	755						760					765							
Ser	His	Thr	Pro	Ser	Leu	Gln	Phe	Leu	Cys	Ile	Cys	Ser	Leu	Ala	Tyr				
	770					775					780								
Thr	Glu	Ala	Gly	Gln	Thr	Val	Ile	Asn	Ile	Met	Gly	Ile	Gly	Val	Asp				
785					790					795					800				
Thr	Ile	Asp	Met	Val	Met	Ala	Ala	Gln	Pro	Arg	Ser	Asp	Gly	Ala	Glu				
				805					810					815					
Gly	Gln	Gly	Gln	Gly	Gln	Leu	Leu	Ile	Lys	Thr	Val	Lys	Leu	Ala	Phe				
			820					825					830						
Ser	Val	Thr	Asn	Asn	Val	Ile	Arg	Leu	Lys	Pro	Pro	Ser	Asn	Val	Val				
		835					840					845							
Ser	Pro	Leu	Glu	Gln	Ala	Leu	Ser	Gln	His	Gly	Ala	His	Gly	Asn	Asn				
	850					855					860								
Leu	Ile	Ala	Val	Leu	Ala	Lys	Tyr	Ile	Tyr	His	Lys	His	Asp	Pro	Ala				
865					870					875					880				
Leu	Pro	Arg	Leu	Ala	Ile	Gln	Leu	Leu	Lys	Arg	Leu	Ala	Thr	Val	Ala				
				885					890					895					
Pro	Met	Ser	Val	Tyr	Ala	Cys	Leu	Gly	Asn	Asp	Ala	Ala	Ala	Ile	Arg				
			900					905					910						
Asp	Ala	Phe	Leu	Thr	Arg	Leu	Gln	Ser	Lys	Ile	Glu	Asp	Met	Arg	Ile				
	915						920					925							
Lys	Val	Met	Ile	Leu	Glu	Phe	Leu	Thr	Val	Ala	Val	Glu	Thr	Gln	Pro				
	930					935					940								
Gly	Leu	Ile	Glu	Leu	Phe	Leu	Asn	Leu	Glu	Val	Lys	Asp	Gly	Ser	Asp				

945	950	955	960
Gly Ser Lys Glu Phe Ser Leu Gly Met Trp Ser Cys Leu His Ala Val			
	965	970	975
Leu Glu Leu Ile Asp Ser Gln Gln Gln Asp Arg Tyr Trp Cys Pro Pro			
	980	985	990
Leu Leu His Arg Ala Ala Ile Ala Phe Leu His Ala Leu Trp Gln Asp			
	995	1000	1005
Arg Arg Asp Ser Ala Met Leu Val Leu Arg Thr Lys Pro Lys Phe Trp			
	1010	1015	1020
Glu Asn Leu Thr Ser Pro Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu			
	1025	1030	1035
Thr Ser Glu Pro Ser Ile Leu Glu Thr Cys Ala Leu Ile Met Lys Ile			
	1045	1050	1055
Ile Cys Leu Glu Ile Tyr Tyr Val Val Lys Gly Ser Leu Asp Gln Ser			
	1060	1065	1070
Leu Lys Asp Thr Leu Lys Lys Phe Ser Ile Glu Lys Arg Phe Ala Tyr			
	1075	1080	1085
Trp Ser Gly Tyr Val Lys Ser Leu Ala Val His Val Ala Glu Thr Glu			
	1090	1095	1100
Gly Ser Ser Cys Thr Ser Leu Leu Glu Tyr Gln Met Leu Val Ser Ala			
	1105	1110	1115
Trp Arg Met Leu Leu Ile Ile Ala Thr Thr His Ala Asp Ile Met His			
	1125	1130	1135
Leu Thr Asp Ser Val Val Arg Arg Gln Leu Phe Leu Asp Val Leu Asp			
	1140	1145	1150
Gly Thr Lys Ala Leu Leu Leu Val Pro Ala Ser Val Asn Cys Leu Arg			
	1155	1160	1165
Leu Gly Ser Met Lys Cys Thr Leu Leu Leu Ile Leu Leu Arg Gln Trp			
	1170	1175	1180
Lys Ser Ile Leu Ser Arg Glu Leu Gly Ser Val Asp Glu Ile Leu Gly			
	1185	1190	1195
Pro Leu Thr Glu Ile Leu Glu Gly Val Leu Gln Ala Asp Gln Gln Leu			
	1205	1210	1215
Met Glu Lys Thr Lys Ala Lys Val Phe Ser Ala Phe Ile Thr Val Leu			
	1220	1225	1230
Gln Met Lys Glu Met Lys Val Ser Asp Ile Pro Gln Tyr Ser Gln Leu			
	1235	1240	1245
Val Leu Asn Val Cys Glu Thr Leu Gln Glu Glu Val Ile Ala Leu Phe			

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Asp	Ser	Met	Glu	Thr	Asp	Asp	Cys	Ser	Arg	Ser	Arg	His	Arg	Asp	Gln
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Arg	Asp	Gly	Val	Cys	Val	Leu	Gly	Leu	His	Leu	Ala	Lys	Glu	Leu	Cys
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Glu	Val	Asp	Glu	Asp	Gly	Asp	Ser	Trp	Leu	Gln	Val	Thr	Arg	Arg	Leu
				1315				1320				1325			
Pro	Ile	Leu	Pro	Thr	Leu	Leu	Thr	Thr	Leu	Glu	Val	Ser	Leu	Arg	Met
				1330				1335				1340			
Lys	Gln	Asn	Leu	His	Phe	Thr	Glu	Ala	Thr	Leu	His	Leu	Leu	Leu	Thr
1345				1350				1355				1360			
Leu	Ala	Arg	Thr	Gln	Gln	Gly	Ala	Thr	Ala	Val	Ala	Gly	Ala	Gly	Ile
				1365				1370				1375			
Thr	Gln	Ser	Ile	Cys	Leu	Pro	Leu	Leu	Ser	Val	Tyr	Gln	Leu	Ser	Thr
				1380				1385				1390			
Asn	Gly	Thr	Ala	Gln	Thr	Pro	Ser	Ala	Ser	Arg	Lys	Ser	Leu	Asp	Ala
				1395				1400				1405			
Pro	Ser	Trp	Pro	Gly	Val	Tyr	Arg	Leu	Ser	Met	Ser	Leu	Met	Glu	Gln
				1410				1415				1420			
Leu	Leu	Lys	Thr	Leu	Arg	Tyr	Asn	Phe	Leu	Pro	Glu	Ala	Leu	Asp	Phe
1425				1430				1435				1440			
Val	Gly	Val	His	Gln	Glu	Arg	Thr	Leu	Gln	Cys	Leu	Asn	Ala	Val	Arg
				1445				1450				1455			
Thr	Val	Gln	Ser	Leu	Ala	Cys	Leu	Glu	Glu	Ala	Asp	His	Thr	Val	Gly
				1460				1465				1470			
Phe	Ile	Leu	Gln	Leu	Ser	Asn	Phe	Met	Lys	Glu	Trp	His	Phe	His	Leu
1475				1480				1485							
Pro	Gln	Leu	Met	Arg	Asp	Ile	Gln	Val	Asn	Leu	Gly	Tyr	Leu	Cys	Gln
1490				1495				1500							
Ala	Cys	Thr	Ser	Leu	Leu	His	Ser	Arg	Lys	Met	Leu	Gln	His	Tyr	Leu
1505				1510				1515				1520			
Gln	Asn	Lys	Asn	Gly	Asp	Gly	Leu	Pro	Ser	Ala	Val	Ala	Gln	Arg	Val
				1525				1530				1535			
Gln	Arg	Pro	Pro	Ser	Ala	Ala	Ser	Ala	Ala	Pro	Ser	Ser	Ser	Lys	Gln
				1540				1545				1550			
Pro	Ala	Ala	Asp	Thr	Glu	Ala	Ser	Glu	Gln	Gln	Ala	Leu	His	Thr	Val

1555	1560	1565
Gln Tyr Gly Leu Leu Lys Ile Leu Ser Lys Thr Leu Ala Ala Leu Arg 1570	1575	1580
His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser Leu Asp 1585	1590	1595 1600
Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr Pro Thr 1605	1610	1615
Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala Thr Val 1620	1625	1630
Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys Glu Pro 1635	1640	1645
Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr Arg Thr 1650	1655	1660
Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr Leu Leu 1665	1670	1675 1680
Ile Ser Gln Ala Met Arg Tyr Leu Arg Asp Pro Ala Val His Pro Arg 1685	1690	1695
Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser Thr Leu 1700	1705	1710
Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser Ser Pro 1715	1720	1725
Ala Thr Gly Val Leu Pro Ser Pro Gln Gly Lys Ser Thr Ser Leu Ser 1730	1735	1740
Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val Gln Ala 1745	1750	1755 1760
Phe Val Arg His Met Gln Arg Met Ala Ser Gly Gly Gly Val Arg Ala 1765	1770	1775
Ser Gly Arg Ala Lys Met Ala Ala Ala Ala Gly Gly Pro Cys Val Arg 1780	1785	1790
Ser Ser Arg Glu Leu Trp Thr Ile Leu Leu Gly Arg Ser Ala Leu Arg 1795	1800	1805
Glu Leu Ser Gln Ile Glu Ala Glu Leu Asn Lys His Trp Arg Arg Leu 1810	1815	1820
Leu Glu Gly Leu Ser Tyr Tyr Lys Pro Pro Ser Pro Ser Ser Ala Glu 1825	1830	1835 1840
Lys Val Lys Ala Asn Lys Asp Val Ala Ser Pro Leu Lys Glu Leu Gly 1845	1850	1855
Leu Arg Ile Ser Lys Phe Leu Gly Leu Asp Glu Glu Gln Ser Val Gln		

1860	1865	1870
Leu Leu Gln Cys Tyr Leu Gln Glu Asp Tyr Arg Gly Thr Arg Asp Ser		
1875	1880	1885
Val Lys Thr Val Leu Gln Asp Glu Arg Gln Ser Gln Ala Leu Ile Leu		
1890	1895	1900
Lys Ile Ala Asp Tyr Tyr Tyr Glu Glu Arg Thr Cys Ile Leu Arg Cys		
1905	1910	1915
Val Leu His Leu Leu Thr Tyr Phe Gln Asp Glu Arg His Pro Tyr Arg		
1925	1930	1935
Val Glu Tyr Ala Asp Cys Val Asp Lys Leu Glu Lys Glu Leu Val Ser		
1940	1945	1950
Lys Tyr Arg Gln Gln Phe Glu Glu Leu Tyr Lys Thr Glu Ala Pro Thr		
1955	1960	1965
Trp Glu Thr His Gly Asn Leu Met Thr Glu Arg Gln Val Ser Arg Trp		
1970	1975	1980
Phe Val Gln Cys Leu Arg Glu Gln Ser Met Leu Leu Glu Ile Ile Phe		
1985	1990	1995
Leu Tyr Tyr Ala Tyr Phe Glu Met Ala Pro Ser Asp Leu Leu Val Leu		
2005	2010	2015
Thr Lys Met Phe Lys Glu Gln Gly Phe Gly Ser Arg Gln Thr Asn Arg		
2020	2025	2030
His Leu Val Asp Glu Thr Met Asp Pro Phe Val Asp Arg Ile Gly Tyr		
2035	2040	2045
Phe Ser Ala Leu Ile Leu Val Glu Gly Met Asp Ile Glu Ser Leu His		
2050	2055	2060
Lys Cys Ala Leu Asp Asp Arg Arg Glu Leu His Gln Phe Ala Gln Asp		
2065	2070	2075
Gly Leu Ile Cys Gln Asp Met Asp Cys Leu Met Leu Thr Phe Gly Asp		
2085	2090	2095
Ile Pro His His Ala Pro Val Leu Leu Ala Trp Ala Leu Leu Arg His		
2100	2105	2110
Thr Leu Asn Pro Glu Glu Thr Ser Ser Val Val Arg Lys Ile Gly Gly		
2115	2120	2125
Thr Ala Ile Gln Leu Asn Val Phe Gln Tyr Leu Thr Arg Leu Leu Gln		
2130	2135	2140
Ser Leu Ala Ser Gly Gly Asn Asp Cys Thr Thr Ser Thr Ala Cys Met		
2145	2150	2155
Cys Val Tyr Gly Leu Leu Ser Phe Val Leu Thr Ser Leu Glu Leu His		

2165	2170	2175
Thr Leu Gly Asn Gln Gln Asp Ile Ile Asp Thr Ala Cys Glu Val Leu		
2180	2185	2190
Ala Asp Pro Ser Leu Pro Glu Leu Phe Trp Gly Thr Glu Pro Thr Ser		
2195	2200	2205
Gly Leu Gly Ile Ile Leu Asp Ser Val Cys Gly Met Phe Pro His Leu		
2210	2215	2220
Leu Ser Pro Leu Leu Gln Leu Leu Arg Ala Leu Val Ser Gly Lys Ser		
2225	2230	2235
Thr Ala Lys Lys Val Tyr Ser Phe Leu Asp Lys Met Ser Phe Tyr Asn		
2245	2250	2255
Glu Leu Tyr Lys His Lys Pro His Asp Val Ile Ser His Glu Asp Gly		
2260	2265	2270
Thr Leu Trp Arg Arg Gln Thr Pro Lys Leu Leu Tyr Pro Leu Gly Gly		
2275	2280	2285
Gln Thr Asn Leu Arg Ile Pro Gln Gly Thr Val Gly Gln Val Met Leu		
2290	2295	2300
Asp Asp Arg Ala Tyr Leu Val Arg Trp Glu Tyr Ser Tyr Ser Ser Trp		
2305	2310	2315
Thr Leu Phe Thr Cys Glu Ile Glu Met Leu Leu His Val Val Ser Thr		
2325	2330	2335
Ala Asp Val Ile Gln His Cys Gln Arg Val Lys Pro Ile Ile Asp Leu		
2340	2345	2350
Val His Lys Val Ile Ser Thr Asp Leu Ser Ile Ala Asp Cys Leu Leu		
2355	2360	2365
Pro Ile Thr Ser Arg Ile Tyr Met Leu Leu Gln Arg Leu Thr Thr Val		
2370	2375	2380
Ile Ser Pro Pro Val Asp Val Ile Ala Ser Cys Val Asn Cys Leu Thr		
2385	2390	2395
Val Leu Ala Ala Arg Asn Pro Ala Lys Val Trp Thr Asp Leu Arg His		
2405	2410	2415
Thr Gly Phe Leu Pro Phe Val Ala His Pro Val Ser Ser Leu Ser Gln		
2420	2425	2430
Met Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly Asn Leu Leu		
2435	2440	2445
Met Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr Ile Ala Phe		
2450	2455	2460
Leu Arg Leu Ile Thr Thr Leu Val Lys Gly Gln Leu Gly Ser Thr Gln		

2465	2470	2475	2480
Ser Gln Gly Leu Val	Pro Cys Val Met Phe Val	Leu Lys Glu Met	Leu
2485	2490	2495	
Pro Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val Arg Glu Gln			
2500	2505	2510	
Ile Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu Asn Leu Cys			
2515	2520	2525	
His Glu Thr Asp Leu His Ser Ser His Thr Pro Ser Leu Gln Phe Leu			
2530	2535	2540	
Cys Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr Val Ile Asn			
2545	2550	2555	2560
Ile Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met Ala Ala Gln			
2565	2570	2575	
Pro Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln Gly Gln Leu Leu Ile			
2580	2585	2590	
Lys Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val Ile Arg Leu			
2595	2600	2605	
Lys Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala Leu Ser Gln			
2610	2615	2620	
His Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala Lys Tyr Ile			
2625	2630	2635	2640
Tyr His Lys His Asp Pro Ala Leu Pro Arg Leu Ala Ile Gln Leu Leu			
2645	2650	2655	
Lys Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala Cys Leu Gly			
2660	2665	2670	
Asn Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg Leu Gln Ser			
2675	2680	2685	
Lys Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu Phe Leu Thr			
2690	2695	2700	
Val Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe Leu Asn Leu			
2705	2710	2715	2720
Glu Val Lys Asp Gly Ser Asp Gly Ser Lys Glu Phe Ser Leu Gly Met			
2725	2730	2735	
Trp Ser Cys Leu His Ala Val Leu Glu Leu Ile Asp Ser Gln Gln Gln			
2740	2745	2750	
Asp Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala Ile Ala Phe			
2755	2760	2765	
Leu His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met Leu Val Leu			

2770	2775	2780
Arg Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro Leu Phe Gly		
2785	2790	2795 2800
Thr Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Ile Leu Glu Thr		
	2805	2810 2815
Cys Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr Tyr Val Val		
	2820	2825 2830
Lys Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys Lys Phe Ser		
	2835	2840 2845
Ile Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys Ser Leu Ala		
	2850	2855 2860
Val His Val Ala Glu Thr Glu Gly Ser Ser Cys Thr Ser Leu Leu Glu		
	2865	2870 2875 2880
Tyr Gln Met Leu Val Ser Ala Trp Arg Met Leu Leu Ile Ile Ala Thr		
	2885	2890 2895
Thr His Ala Asp Ile Met His Leu Thr Asp Ser Val Val Arg Arg Gln		
	2900	2905 2910
Leu Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu Leu Val Pro		
	2915	2920 2925
Ala Ser Val Asn Cys Leu Arg Leu Gly Ser Met Lys Cys Thr Leu Leu		
	2930	2935 2940
Leu Ile Leu Leu Arg Gln Trp Lys Ser Ile Leu Ser Arg Glu Leu Gly		
	2945	2950 2955 2960
Ser Val Asp Glu Ile Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val		
	2965	2970 2975
Leu Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe		
	2980	2985 2990
Ser Ala Phe Ile Thr Val Leu Gln Met Lys Glu Met Lys Val Ser Asp		
	2995	3000 3005
Ile Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln		
	3010	3015 3020
Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser Leu Ala Leu		
	3025	3030 3035 3040
Gly Ser Ala Thr Glu Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Ser		
	3045	3050 3055
Arg Ser Arg His Arg Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu		
	3060	3065 3070
His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp		

3075	3080	3085
Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr 3090	3095	3100
Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala 3105	3110	3115 3120
Thr Leu His Leu Leu Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr 3125	3130	3135
Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu 3140	3145	3150
Ser Val Tyr Gln Leu Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser Ala 3155	3160	3165
Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu 3170	3175	3180
Ser Met Ser Leu Met Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn Phe 3185	3190	3195 3200
Leu Pro Glu Ala Leu Asp Phe Val Gly Val His Gln Glu Arg Thr Leu 3205	3210	3215
Gln Cys Leu Asn Ala Val Arg Thr Val Gln Ser Leu Ala Cys Leu Glu 3220	3225	3230
Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser Asn Phe Met 3235	3240	3245
Lys Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp Ile Gln Val 3250	3255	3260
Asn Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg 3265	3270	3275 3280
Lys Met Leu Gln His Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro 3285	3290	3295
Ser Ala Val Ala Gln Arg Val Gln Arg Pro Pro Ser Ala Ala Ser Ala 3300	3305	3310
Ala Pro Ser Ser Ser Lys Gln Pro Ala Ala Asp Thr Glu Ala Ser Glu 3315	3320	3325
Gln Gln Ala Leu His Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser 3330	3335	3340
Lys Thr Leu Ala Ala Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile 3345	3350	3355 3360
Leu Leu Asp Gln Ser Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala 3365	3370	3375
Leu Ser Phe Thr Thr Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe		

3380	3385	3390
Gly Thr Leu Leu Ala Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu		
3395	3400	3405
Leu Asp Lys Lys Lys Glu Pro Leu Thr Gln Ala Val Gly Leu Ser Thr		
3410	3415	3420
Gln Ala Glu Gly Thr Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met		
3425	3430	3435 3440
Glu Asn Cys Phe Tyr Leu Leu Ile Ser Gln Ala Met Arg Tyr Leu Arg		
3445	3450	3455
Asp Pro Ala Val His Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu		
3460	3465	3470
Ser Ser Glu Leu Ser Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg		
3475	3480	3485
Arg Gly Ala Pro Ser Ser Pro Ala Thr Gly Val Leu Pro Ser Pro Gln		
3490	3495	3500
Gly Lys Ser Thr Ser Leu Ser Lys Ala Ser Pro Glu Ser Gln Glu Pro		
3505	3510	3515 3520
Leu Ile Gln Leu Val Gln Ala Phe Val Arg His Met Gln Arg		
3525	3530	

<210> 23
 <211> 1111
 <212> PRT
 <213> Homo sapiens

<400> 23

Met Thr Gln Met Ile Ser Ala Glu Gly Met Asn Ala Gly Gly Tyr Gly
1 5 10 15
Ser Leu Leu Met Asn Ser Glu Gln Pro Gln Gly Glu Tyr Gly Val Thr
20 25 30
Ile Ala Phe Leu Arg Leu Val Thr Thr Leu Val Lys Gly Gln Leu Gly
35 40 45
Ser Thr Gln Ser Gln Gly Leu Val Pro Cys Val Met Phe Val Leu Lys
50 55 60
Glu Met Leu Pro Ser Tyr His Lys Trp Arg Tyr Asn Ser His Gly Val
65 70 75 80
Arg Glu Leu Ile Gly Cys Leu Ile Leu Glu Leu Ile His Ala Ile Leu
85 90 95
Asn Leu Cys Gln Glu Thr Glu Leu His Ser Ser His Thr Pro Ser Leu
100 105 110

Pro Ser Leu Cys Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly Gln Thr
 115 120 125
 Val Ile Ser Ile Met Gly Ile Gly Val Asp Thr Ile Asp Met Val Met
 130 135 140
 Ala Ala Gln Pro Arg Ser Asp Gly Pro Glu Gly Gln Gly Gln Gly Gln
 145 150 155 160
 Leu Leu Ile Lys Thr Val Lys Leu Ala Phe Ser Val Thr Asn Asn Val
 165 170 175
 Ile Arg Leu Lys Pro Pro Ser Asn Val Val Ser Pro Leu Glu Gln Ala
 180 185 190
 Leu Thr Gln His Gly Ala His Gly Asn Asn Leu Ile Ala Val Leu Ala
 195 200 205
 Lys Tyr Ile Tyr His Arg His Asp Pro Ala Leu Pro Arg Leu Ala Ile
 210 215 220
 Gln Leu Leu Lys Arg Leu Ala Thr Val Ala Pro Met Ser Val Tyr Ala
 225 230 235 240
 Cys Leu Gly Ser Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu Thr Arg
 245 250 255
 Leu Gln Ser Lys Ile Glu Asp Met Arg Ile Lys Val Met Ile Leu Glu
 260 265 270
 Phe Leu Thr Val Ala Val Glu Thr Gln Pro Gly Leu Ile Glu Leu Phe
 275 280 285
 Leu Asn Leu Glu Val Lys Asp Gly Ser Asn Gly Ser Lys Glu Phe Ser
 290 295 300
 Leu Gly Val Trp Ser Cys Leu His Val Val Leu Glu Leu Ile Asp Ser
 305 310 315 320
 Gln Gln Gln Asp Arg Tyr Trp Cys Pro Pro Leu Leu His Arg Ala Ala
 325 330 335
 Ile Ala Phe Leu His Ala Leu Trp Gln Asp Arg Arg Asp Ser Ala Met
 340 345 350
 Leu Val Leu Arg Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr Ser Pro
 355 360 365
 Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro Ser Val
 370 375 380
 Leu Glu Thr Cys Ala Leu Ile Met Lys Ile Ile Cys Leu Glu Ile Tyr
 385 390 395 400
 Tyr Val Val Lys Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr Leu Lys
 405 410 415

Lys Phe Ser Ser Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr Val Lys
 420 425 430
 Ser Leu Ala Val Tyr Met Ala Asp Thr Glu Gly Ser Ser Cys Thr Ser
 435 440 445
 Leu Leu Glu Tyr Gln Met Leu Val Ser Ala Trp Arg Ile Leu Leu Ile
 450 455 460
 Ile Ala Ala Ser His Ala Asp Val Met His Leu Thr Asp Met Ala Val
 465 470 475 480
 Arg Arg Gln Leu Phe Leu Asp Val Leu Asp Gly Thr Lys Ala Leu Leu
 485 490 495
 Leu Val Ala Ala Ser Val Asn Cys Leu Arg Leu Gly Ser Met Met Cys
 500 505 510
 Thr Leu Leu Leu Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu Gly Ala
 515 520 525
 Val Glu Lys Ile Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly Val Leu
 530 535 540
 Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala Lys Val Phe Ser
 545 550 555 560
 Ala Phe Ile Thr Val Leu Gln Met Lys Glu Leu Arg Val Gly Asp Ile
 565 570 575
 Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu Thr Leu Gln Glu
 580 585 590
 Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser Leu Ala Ser Asp
 595 600 605
 Ser Ala Ala Glu Asp Lys Asp Ser Met Glu Thr Asp Asp Cys Pro Arg
 610 615 620
 Pro Arg His Lys Asp Gln Arg Asp Gly Val Cys Val Leu Gly Leu His
 625 630 635 640
 Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly Asp Ser Trp Leu
 645 650 655
 Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr Thr Leu
 660 665 670
 Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe Thr Glu Ala Ala
 675 680 685
 Leu His Leu Leu Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala Thr Ala
 690 695 700
 Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu Leu Ser
 705 710 715 720

Val Tyr Gln Leu Ser Ser Asn Gly Thr Gly Gln Thr Pro Ser Thr Ser
 725 730 735
 Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg Leu Ser
 740 745 750
 Met Ser Leu Met Glu Arg Leu Leu Lys Thr Leu Arg Tyr Asn Phe Leu
 755 760 765
 Thr Glu Ala Leu Asp Phe Val Gly Val His Gln Glu Arg Thr Leu Gln
 770 775 780
 Cys Leu Asn Ala Val Lys Thr Val Gln Ser Leu Ala Cys Leu Glu Glu
 785 790 795 800
 Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser His Phe Arg Lys
 805 810 815
 Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp Val Gln Val Asn
 820 825 830
 Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser Leu Leu His Ser Arg Lys
 835 840 845
 Met Leu Gln His Tyr Leu Gln Asn Lys Asn Gly Asp Gly Leu Pro Ser
 850 855 860
 Ala Val Thr Pro Arg Ala Gln Arg Pro Ser Thr Thr Thr Thr Thr Thr
 865 870 875 880
 Thr Thr Thr Thr Ala Leu Ala Thr Pro Ala Gly Cys Ser Ser Lys Gln
 885 890 895
 Pro Thr Ala Asp Thr Glu Ala Ser Glu Gln Arg Ala Leu His Thr Val
 900 905 910
 Gln Tyr Gly Leu Leu Lys Ile Leu Ser Arg Thr Leu Ala Ala Leu Arg
 915 920 925
 His Phe Thr Pro Asp Val Cys Gln Ile Leu Leu Asp Gln Ser Leu Asp
 930 935 940
 Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu Ser Phe Thr Thr Pro Thr
 945 950 955 960
 Phe Asp Ser Glu Val Ala Pro Ser Phe Gly Thr Leu Leu Ala Thr Val
 965 970 975
 Asn Val Ala Leu Asn Met Leu Gly Glu Leu Asp Lys Lys Lys Glu Ser
 980 985 990
 Leu Thr Gln Ala Val Gly Leu Ser Thr Gln Ala Glu Gly Thr Arg Thr
 995 1000 1005
 Leu Lys Ser Leu Leu Met Phe Thr Met Glu Asn Cys Phe Tyr Leu Leu
 1010 1015 1020

Ile Ser Gln Ala Val Arg Tyr Leu Arg Asp Pro Ala Val His Pro Arg
 1025 1030 1035 1040

Asp Lys Gln Arg Met Lys Gln Glu Leu Ser Ser Glu Leu Ser Thr Leu
 1045 1050 1055

Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg Gly Ala Pro Ser Ser Pro
 1060 1065 1070

Ala Ala Gly Val Leu Pro Ser Pro Gln Gly Lys Ala Thr Ser Leu Ser
 1075 1080 1085

Lys Ala Ser Pro Glu Ser Gln Glu Pro Leu Ile Gln Leu Val Gln Ala
 1090 1095 1100

Phe Val Arg His Val Gln Arg
 1105 1110

<210> 24
 <211> 853
 <212> PRT
 <213> Homo sapiens

<400> 24
 Val Thr Ile Ala Phe Leu Arg Leu Ile Thr Thr Leu Val Lys Gly Gln
 1 5 10 15

Leu Gly Ser Thr Gln Ser Gln Gly Leu Val Pro Cys Val Met Phe Val
 20 25 30

Leu Lys Glu Met Leu Pro Ser Tyr His Lys Trp Arg Tyr Asn Ser His
 35 40 45

Gly Val Arg Glu Gln Ile Gly Cys Leu Ile Leu Glu Leu Ile His Ala
 50 55 60

Ile Leu Asn Leu Cys His Glu Thr Asp Leu His Ser Ser His Thr Pro
 65 70 75 80

Ser Leu Gln Phe Leu Cys Ile Cys Ser Leu Ala Tyr Thr Glu Ala Gly
 85 90 95

Gln Thr Val Ile Asn Ile Met Gly Ile Gly Val Asp Thr Ile Asp Met
 100 105 110

Val Met Ala Ala Gln Pro Arg Ser Asp Gly Ala Glu Gly Gln Gly Gln
 115 120 125

Gly Gln Leu Leu Ile Lys Thr Val Lys Leu Ala Phe Ser Val Thr Asn
 130 135 140

Asn Val Ile Arg Leu Lys Pro Pro Ser Asn Val Val Ser Pro Leu Glu
 145 150 155 160

Gln Ala Leu Ser Gln His Gly Ala His Gly Asn Asn Leu Ile Ala Val
 165 170 175

Leu Ala Lys Tyr Ile Tyr His Lys His Asp Pro Ala Leu Pro Arg Leu
 180 185 190

Ala Ile Gln Leu Leu Lys Arg Leu Ala Thr Val Ala Pro Met Ser Val
 195 200 205

Tyr Ala Cys Leu Gly Asn Asp Ala Ala Ala Ile Arg Asp Ala Phe Leu
 210 215 220

Thr Arg Leu Gln Ser Lys Ile Glu Asp Met Arg Ile Lys Val Met Ile
 225 230 235 240

Leu Glu Phe Leu Thr Val Ala Val Glu Thr Gln Pro Gly Leu Ile Glu
 245 250 255

Leu Phe Leu Asn Leu Glu Val Lys Asp Gly Ser Asp Gly Ser Lys Glu
 260 265 270

Phe Ser Leu Gly Met Trp Ser Cys Leu His Ala Val Leu Glu Leu Ile
 275 280 285

Asp Ser Gln Gln Gln Asp Arg Tyr Trp Cys Pro Pro Leu Leu His Arg
 290 295 300

Ala Ala Ile Ala Phe Leu His Ala Leu Trp Gln Asp Arg Arg Asp Ser
 305 310 315 320

Ala Met Leu Val Leu Arg Thr Lys Pro Lys Phe Trp Glu Asn Leu Thr
 325 330 335

Ser Pro Leu Phe Gly Thr Leu Ser Pro Pro Ser Glu Thr Ser Glu Pro
 340 345 350

Ser Ile Leu Glu Thr Cys Ala Leu Ile Met Lys Ile Ile Cys Leu Glu
 355 360 365

Ile Tyr Tyr Val Val Lys Gly Ser Leu Asp Gln Ser Leu Lys Asp Thr
 370 375 380

Leu Lys Lys Phe Ser Ile Glu Lys Arg Phe Ala Tyr Trp Ser Gly Tyr
 385 390 395 400

Val Lys Ser Leu Ala Val His Val Ala Glu Thr Glu Gly Ser Ser Cys
 405 410 415

Thr Ser Leu Leu Glu Tyr Gln Met Leu Val Ser Ala Trp Arg Met Leu
 420 425 430

Leu Ile Ile Ala Thr Thr His Ala Asp Ile Met His Leu Thr Asp Ser
 435 440 445

Val Val Arg Arg Gln Leu Phe Leu Asp Val Leu Asp Gly Thr Lys Ala
 450 455 460

Leu Leu Leu Val Pro Ala Ser Val Asn Cys Leu Arg Leu Gly Ser Met
 465 470 475 480

Lys Cys Thr Leu Leu Leu Ile Leu Leu Arg Gln Trp Lys Arg Glu Leu
 485 490 495
 Gly Ser Val Asp Glu Ile Leu Gly Pro Leu Thr Glu Ile Leu Glu Gly
 500 505 510
 Val Leu Gln Ala Asp Gln Gln Leu Met Glu Lys Thr Lys Ala Lys Val
 515 520 525
 Phe Ser Ala Phe Ile Thr Val Leu Gln Met Lys Glu Met Lys Val Ser
 530 535 540
 Asp Ile Pro Gln Tyr Ser Gln Leu Val Leu Asn Val Cys Glu Thr Leu
 545 550 555 560
 Gln Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg His Ser Leu Ala
 565 570 575
 Leu Gly Ser Ala Thr Glu Asp Lys Asp Ser Met Glu Thr Asp Asp Cys
 580 585 590
 Ser Arg Ser Arg His Arg Asp Gln Arg Asp Gly Val Cys Val Leu Gly
 595 600 605
 Leu His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu Asp Gly Asp Ser
 610 615 620
 Trp Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro Thr Leu Leu Thr
 625 630 635 640
 Thr Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu His Phe Thr Glu
 645 650 655
 Ala Thr Leu His Leu Leu Leu Thr Leu Ala Arg Thr Gln Gln Gly Ala
 660 665 670
 Thr Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile Cys Leu Pro Leu
 675 680 685
 Leu Ser Val Tyr Gln Leu Ser Thr Asn Gly Thr Ala Gln Thr Pro Ser
 690 695 700
 Ala Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro Gly Val Tyr Arg
 705 710 715 720
 Leu Ser Met Ser Leu Met Glu Gln Leu Leu Lys Thr Leu Arg Tyr Asn
 725 730 735
 Phe Leu Pro Glu Ala Leu Asp Phe Val Gly Val His Gln Glu Arg Thr
 740 745 750
 Leu Gln Cys Leu Asn Ala Val Arg Thr Val Gln Ser Leu Ala Cys Leu
 755 760 765
 Glu Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln Leu Ser Asn Phe
 770 775 780

Met Lys Glu Trp His Phe His Leu Pro Gln Leu Met Arg Asp Ile Gln
785 790 795 800

Val Gly Ala Gln Asp Gly Val Leu Glu Ser Gly Val Met Leu Gly Asp
805 810 815

Arg Glu Ala Val Arg Ser His Trp Gly Thr Pro Ser Glu Leu Gln Asp
820 825 830

Val Pro Glu Arg Gly Leu Phe Pro Trp Gly Ala Gln Gly Leu Leu Ser
835 840 845

Cys Ala Tyr Ser Gly
850

<210> 25

<211> 525

<212> PRT

<213> Mus musculus

<400> 25

Thr Arg Pro Leu Gln Glu Glu Val Ile Ala Leu Phe Asp Gln Thr Arg
1 5 10 15

His Ser Leu Ala Ser Asp Ser Ala Ala Glu Asp Lys Asp Ser Met Glu
20 25 30

Thr Asp Asp Cys Pro Arg Pro Arg His Lys Asp Gln Arg Asp Gly Val
35 40 45

Cys Val Leu Gly Leu His Leu Ala Lys Glu Leu Cys Glu Val Asp Glu
50 55 60

Asp Gly Asp Ser Trp Leu Gln Val Thr Arg Arg Leu Pro Ile Leu Pro
65 70 75 80

Thr Leu Leu Thr Thr Leu Glu Val Ser Leu Arg Met Lys Gln Asn Leu
85 90 95

His Phe Thr Glu Ala Ala Leu His Leu Leu Thr Leu Ala Arg Thr
100 105 110

Gln Gln Gly Ala Thr Ala Val Ala Gly Ala Gly Ile Thr Gln Ser Ile
115 120 125

Cys Leu Pro Leu Leu Ser Val Tyr Gln Leu Ser Ser Asn Gly Thr Gly
130 135 140

Gln Thr Pro Ser Thr Ser Arg Lys Ser Leu Asp Ala Pro Ser Trp Pro
145 150 155 160

Gly Val Tyr Arg Leu Ser Met Ser Leu Met Glu Arg Leu Leu Lys Thr
165 170 175

Leu Arg Tyr Asn Phe Leu Thr Glu Ala Leu Asp Phe Val Gly Val His

180	185	190
Gln Glu Arg Thr Leu Gln Cys	Leu Asn Ala Val Lys Thr Val Gln Ser	
195	200	205
Leu Ala Cys Leu Glu Glu Ala Asp His Thr Val Gly Phe Ile Leu Gln		
210	215	220
Leu Ser His Phe Arg Lys Glu Trp His Phe His Leu Pro Gln Leu Met		
225	230	235
Arg Asp Val Gln Val Asn Leu Gly Tyr Leu Cys Gln Ala Cys Thr Ser		
	245	250
		255
Leu Leu His Ser Arg Lys Met Leu Gln His Tyr Leu Gln Asn Lys Asn		
	260	265
		270
Gly Asp Gly Leu Pro Ser Ala Val Thr Pro Arg Ala Gln Arg Pro Ser		
	275	280
		285
Thr Thr Thr Thr Thr Thr Thr Thr Thr Thr Thr Ala Leu Ala Thr Pro Ala		
	290	295
		300
Gly Cys Ser Ser Lys Gln Pro Thr Ala Asp Thr Glu Ala Ser Glu Gln		
305	310	315
		320
Arg Ala Leu His Thr Val Gln Tyr Gly Leu Leu Lys Ile Leu Ser Arg		
	325	330
		335
Thr Leu Ala Ala Leu Arg His Phe Thr Pro Asp Val Cys Gln Ile Leu		
	340	345
		350
Leu Asp Gln Ser Leu Asp Leu Ala Glu Tyr Asn Phe Leu Phe Ala Leu		
	355	360
		365
Ser Phe Thr Thr Pro Thr Phe Asp Ser Glu Val Ala Pro Ser Phe Gly		
	370	375
		380
Thr Leu Leu Ala Thr Val Asn Val Ala Leu Asn Met Leu Gly Glu Leu		
385	390	395
		400
Asp Lys Lys Lys Glu Ser Leu Thr Gln Ala Val Gly Leu Ser Thr Gln		
	405	410
		415
Ala Glu Gly Thr Arg Thr Leu Lys Ser Leu Leu Met Phe Thr Met Glu		
	420	425
		430
Asn Cys Phe Tyr Leu Leu Ile Ser Gln Ala Val Arg Tyr Leu Arg Asp		
	435	440
		445
Pro Ala Val His Pro Arg Asp Lys Gln Arg Met Lys Gln Glu Leu Ser		
	450	455
		460
Ser Glu Leu Ser Thr Leu Leu Ser Ser Leu Ser Arg Tyr Phe Arg Arg		
465	470	475
		480
Gly Ala Pro Ser Ser Pro Ala Ala Gly Val Leu Pro Ser Pro Gln Gly		

	485		490		495
Lys	Ala	Thr	Ser	Leu	Ser
	500				
			Lys	Ala	Ser
			505		
			Pro	Glu	Ser
			Gln	Glu	Pro
				510	Leu

Ile	Gln	Leu	Val	Gln	Ala	Phe	Val	Arg	His	Val	Gln	Arg
	515						520				525	

<210> 26

<211> 6

<212> PRT

<213> Homo sapiens

<400> 26

Ala	Gly	Gly	Pro	Cys	Val
1				5	